Didcot Green Infrastructure Strategy

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Arkwood

South Oxfordshire District Council

Vale of White Horse District Council

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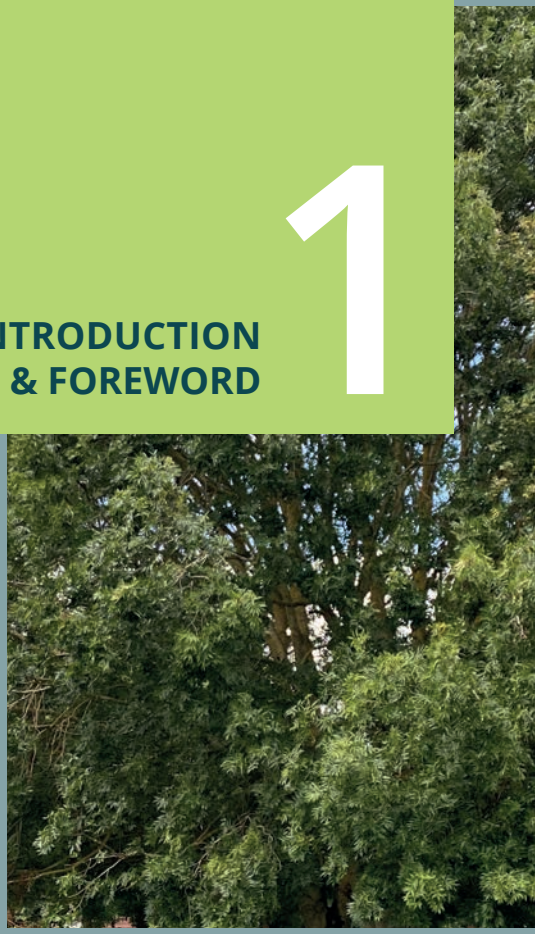


1.0 Introduction and Foreword

This Green Infrastructure Strategy assesses current green infrastructure provision in and around Didcot and provides guidance on expanding the network of green infrastructure assets across the Town and enhancing connectivity between these assets. The Strategy also provides a framework for protecting and improving existing green infrastructure and proposes mechanisms for delivery.

Didcot's population increased by 34% between 2011 and 2021 (from 25,792 in 2011 to 34,598 in 2021).[1] With the development of Didcot Garden Town, the population of Didcot will further increase to approximately 62,000 by 2031 (an increase of 79%).[2] This new development will help solidify Didcot as the Gateway to Science Vale – one of the most successful and thriving science and technology clusters in the UK.[3] This upcoming development brings great potential to deliver ambitious green infrastructure provision, as underlined by Policy ENV5 in the South Oxfordshire Local Plan.[4]

The Didcot Garden Town Delivery Plan (2017, updated in 2022) identifies a number of priorities for the emerging Garden Town, principal amongst which is a proposal that an enlarged Didcot could be a "super green town."[5] In this context, the Garden Town should:

- Be cycle-friendly
- Be integrated with nature
- Be health conscious[6]

The Didcot Garden Town Delivery Plan (2017) identifies a number of priorities for the masterplan, including:

- A permeable, connected movement network
- Green surroundings, links and network of spaces form the backbone of the garden town
- Sustainability embedded in every aspect of decision-making

The Didcot Garden Town Delivery Plan (amended) was adopted in June 2022, and identified 27 key points of delivery. Project 16: Green Infrastructure - Strengthening and enhancing open, green space is one of these priorities.

Didcot is currently endowed 551.1 hectares of green infrastructure assets, which represents 27.5% of the Town's total area. Of this total, 235.4 hectares are publicly accessible green infrastructure assets (42.7% of the total), consisting of parks, playgrounds, amenity greenspace, playing fields, sports, nature reserves, woodlands, verges, green corridors, education grounds, and religious grounds. This network of open space, combined with Didcot's street trees, wetlands and waterways and built green features constitute Didcot's green network. It should be noted that green infrastructure capacity across Didcot is influenced by the Town's characteristically low density housing stock, most

of which is provided with rear (and often) front gardens. This capacity can significantly influence ecosystem service flows (especially in relation to biodiversity connectivity) but this influence has not been quantified in this study.

Substantial land use changes such as the transformation of farmland into urban neighbourhoods and the de-industrialisation of sweeping tracts of land, will fundamentally change the landscape. Consequently, Didcot will see major opportunities to enhance its green infrastructure and to embed new greenspaces into the fabric of the Garden Town as well as to connect greenspaces via active travel links and greenways.

The provision of good quality green infrastructure needs to keep pace with the increase in Didcot's population so that the social, environmental and economic benefits of ecosystem service flows (such as health and wellbeing benefits, air quality benefits and carbon sequestration benefits) generated by green infrastructure continue to be enjoyed by the Town's increasing population.

These objectives form the kernel of the brief for this Green Infrastructure Strategy, the purpose of which is to:

- Improve the appearance of the Town and its approaches
- Make it a more connected and greener, healthier place to live; identifying areas of under-provision
- Make green spaces more accessible, inclusive and neuro-diverse;
- Improve connections between the Town and the open countryside
- Provide a green infrastructure network of interlinked multi-purpose open spaces;
- Make the Town more resilient to the effects of climate change and benefit wildlife

Works Cited

1. City Population, "Didcot," April 8, 2023, citing Office for National Statistics.
2. "Chapter 9: A Masterplan for Didcot Garden Town" in Vale of White Horse District Council, *Didcot Garden Town Delivery Plan* (2017), p. 288.
3. South Oxfordshire District Council, *South Oxfordshire Local Plan 2011-2035* (South Oxfordshire District Council, 2020), p. 13.
4. *South Oxfordshire Local Plan 2011-2035,* p. 173.
5. "Chapter 8: A Super Green Town" in *Didcot Garden Town Delivery Plan*, p. 214.
6. "Chapter 9: A Masterplan for Didcot Garden Town" in *Didcot Garden Town Delivery Plan,* p. 313

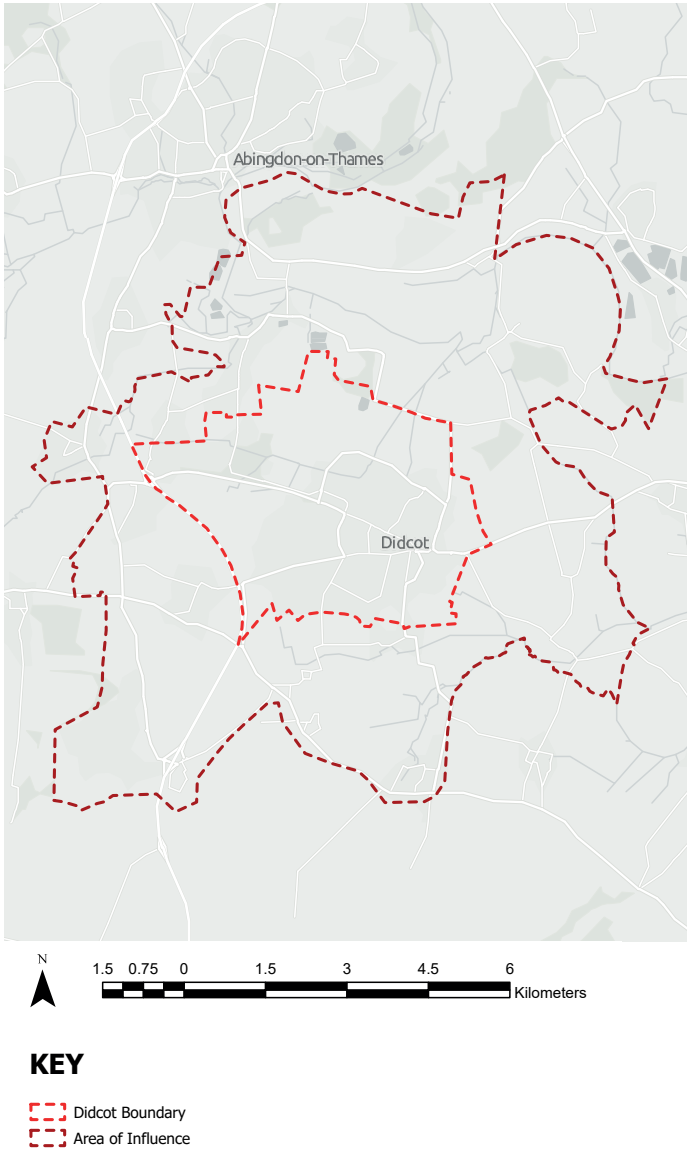
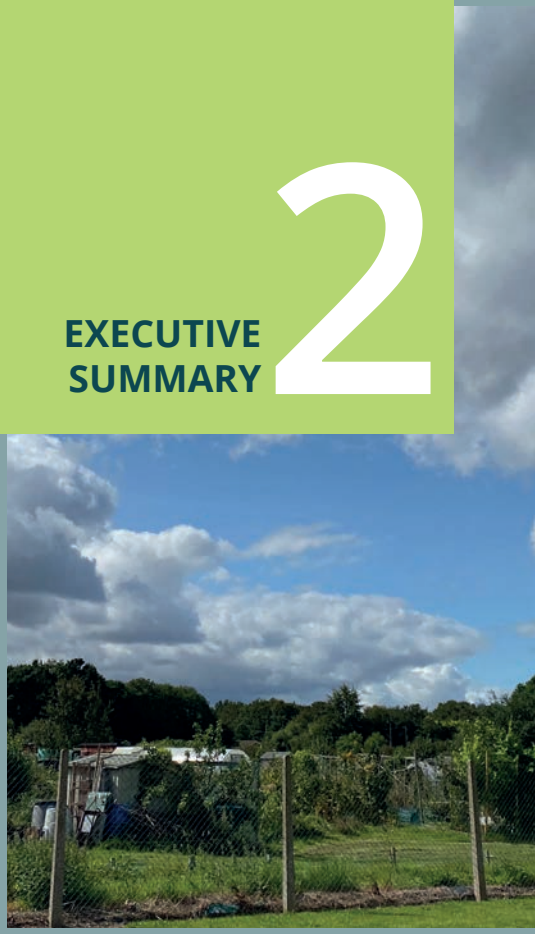


Figure 1: Didcot and Area of Influence Boundary

EXECUTIVE SUMMARY 2



2.0 Executive Summary

The Garden Town project is underway and Didcot is undergoing a period of significant change. Green infrastructure and the ecosystem services that it generates, can provide significant social, environmental and economic benefits to Didcot as the Town expands. This strategy proposes the implementation of a programme of green infrastructure enhancements that will bring existing and new communities within Didcot together as an expression of the Didcot Garden Town Masterplan aspiration to develop a "super green town."

The development of proposals for green infrastructure enhancements need to set in the context of planning policy at national, regional and local levels. Section 3 of the Strategy summarises the main planning policy context for green infrastructure provision. The Strategy also considers the how green infrastructure reflects the Corporate Plans of South Oxfordshire and the Vale of White Horse District Councils and specific policies adopted by County, District and Town Councils in respect of areas of policy that interface with green infrastructure planning – particularly health and wellbeing, active travel and responses to the climate change and biodiversity emergencies.

A detailed assessment of current green infrastructure provision across the whole of Didcot identifies areas of Didcot where there are deficiencies in provision and in connectivity between different green infrastructure components. These components are categorised into a typology of greenspace assets that can be found in Didcot. Overall, analysis is based on the identification of five different geographical character areas across the Town.

The Strategy concludes that Didcot has a good level of green infrastructure provision but that this will decline as the Town's population increases. The Strategy identifies where there are gaps in provision that need to be addressed if the "super green town" ambition is to be realised.

A successful strategy for green infrastructure provision depends on a clear understanding of the benefits that accrue from a robust network of provision. Section 4 describes a series of principles that could underpin future provision. The Strategy also discusses the ecosystem service flows that stem from green infrastructure and how these might be generated in Didcot through an enhancement of provision. The Strategy focuses on green infrastructure connectivity, benefits for place-making and culture, health and wellbeing, deprivation and poor life-chance and climate change and biodiversity resilience. The Strategy also considers how publicly accessible greenspaces (e.g. parks and walking/cycling routes) can be made more accessible for all, including women and girls and other excluded user groups, so that the benefits of green infrastructure provision can be enjoyed by all social cohorts.

The Strategy concludes that there are ample opportunities for green infrastructure enhancement and that these enhancements would deliver a range of benefits to people living and working in the Town.

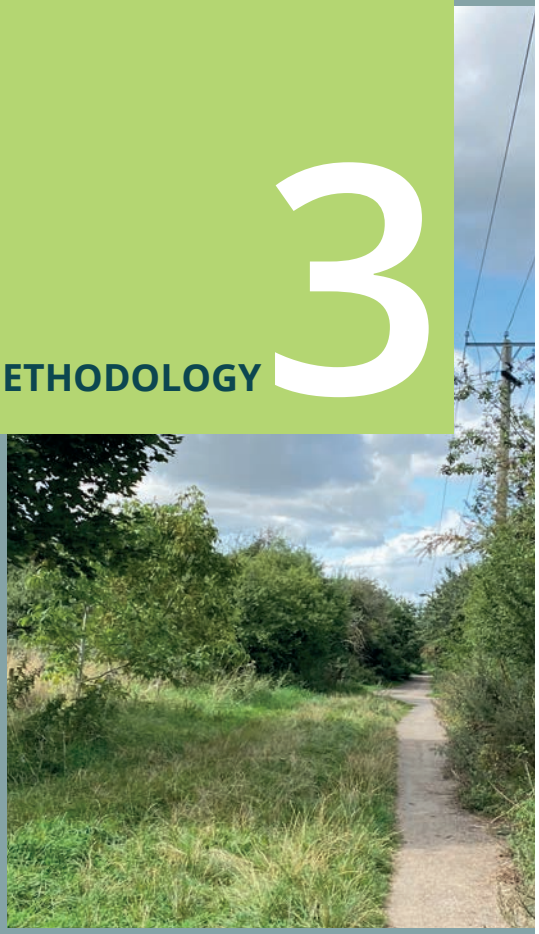
Section 5 of the Strategy sets out a series of recommendations for green infrastructure enhancements in Didcot and establishes a series of short, medium and long-term proposals to deliver these together with broad costs estimates and resourcing requirements. The Strategy identifies potential sources of funding for these enhancements. Corresponding maps of the five identified character areas illustrate the proposals.

The Strategy concludes that the Didcot Garden Town project offers a unique opportunity to enhance green infrastructure provision and ecosystem service flows across Didcot. In 2021, the UK asset value of ecosystem services was estimated to be just over £1.5 trillion, with recreation and health at over £444,808 million.[1] This Strategy suggests that ecosystem services can only deliver if investment in green infrastructure is sustained in response to an increasing population and of level of demands for high quality greenspace.

Works Cited

1. Office for National Statistics (ONS), released 27 November 2023, bulletin, UK Natural Capital Accounts: 2023.

METHODOLOGY 3



3.0 Methodology

3.1 Introduction

The development of this Green Infrastructure Strategy has been informed by accepted best practice including the Defra's Green Infrastructure Principles (2021) and Natural England's Green Infrastructure framework (2023). The Strategy has also referenced national, regional and local policy and best practice for green infrastructure summarised in Section 3.2 below.

3.2 Strategic context review

This Strategy for Didcot forms part of a wider policy and land use planning framework for the expansion of Didcot. The relationship of this Strategy to the wider policy framework is set out in Figure 2 to the right.

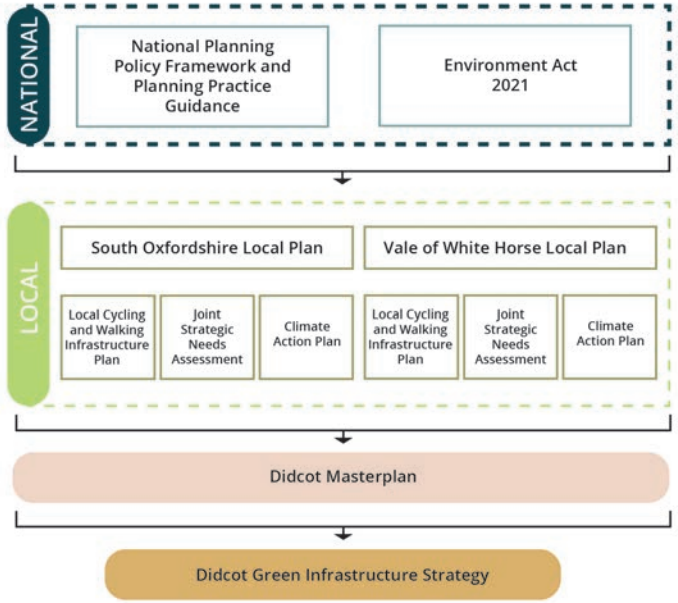


Figure 2: Policy context

3.2.1 Strategy and policy context

National policy

Department for Levelling Up, Housing and Communities, *National Planning Policy Framework* (2023)

The National Planning Policy Framework (NPPF) defines planning policy for all local authorities in England and is the reference document for all Local Plans produced by planning authorities. The environment is one of the three overarching objectives which need to be balanced in order to deliver sustainable development. The NPFF states that strategic policies must make sufficient provisions for "conservation and enhancement of the natural, built and historic environment, including landscapes and green infrastructure."[1]

***The Environment Act* (2021)**

The Environment Act introduces legislation that will improve air and water quality, tackle waste, increase recycling, halt the decline of species, and improve the natural environment.

The Act creates a power to set long-term, legally binding environmental targets. It requires central government to set, and achieve, at least one target in four priority areas: air quality, biodiversity, water, and resource efficiency and waste reduction, as well as a target for fine particulate matter.

Biodiversity net gain (BNG) will become mandatory for most new development in England in January 2024 under the Town and Country Planning Act 1990. Local Nature Recovery Strategies (LNRS) are new measures intended to support delivery of mandatory biodiversity net gain and provide a focus for a strengthened duty on all public authorities for nature restoration. The strategies are a new system of spatial strategies for nature, covering the whole of England. Local Planning Authorities (LPAs) will be required to cooperate with Natural England to prepare Species Conservation Strategies and consider how relevant schemes in their area could be built into Local Plans. Schemes will be delivered in partnership with key agencies, regulators, landowners and developers and overseen by Natural England as a system of strategies working together across the whole of England, paying particular attention to Protected Site Strategies, such as managing the impact of plans on Sites of Special Scientific Interest.

Regional

South Oxfordshire District Council and Vale of White Horse District Council, *Joint Local Plan 2041* (yet to be adopted)

South Oxfordshire and Vale of White Horse District Councils are currently in the process of developing a joint local plan. At time of writing, a consultation has recently been launched calling on the community and stakeholders to share their views on the emerging policy options.[2]

South Oxfordshire District Council, *South Oxfordshire Local Plan 2011-2035* (South Oxfordshire District Council, 2020)

Overall, the South Oxfordshire Local Plan highlights Didcot's significant role in the district's development. The Local Plan outlines how Didcot can grow – focusing on housing, employment, and transport – while protecting and enhancing its natural assets. As part of Policy STRAT3: Didcot Garden Town, the Local Plan promotes Didcot as the gateway to Science Vale. Science Vale is one of the most successful science and technology clusters in the UK.[3] Didcot is one of the important settlements within Science Vale as three of the main centres for science and technology are either within Didcot or its Area of Influence: Culham Science Centre, Milton Park and Harwell Campus.[4] However, currently the economic and social links between Didcot and Science Vale are weak.[5] South Oxfordshire District Council hopes to "improve and strengthen" the relationship between Science Vale and Didcot through "providing the homes, jobs, skills, and infrastructure needed to turn Didcot into a successful and sustainable town in its own right, and a vital part of a thriving Science Vale."[6]

Indeed, as part of fostering economic development Didcot will provide 6,399 new homes between 2011 and 2035. This is noteworthy as Policy ENV5, introduced in Chapter 7 of the Local Plan, emphasises the importance of strengthening green infrastructure in new developments. Policy ENV5 supports "the delivery of ambitious green infrastructure provision" and the planning of "safe, healthy and active spaces."

South Oxfordshire and Vale of White Horse District Councils, *Housing Trajectory* (2022)

- Between 2011 and 2023, 4,603 new homes have been built in Didcot. Over 70% of this development is located in Great Western Park.
- Over the next 5 years, 2,429 new homes will be built, with over 35 per cent of this taking place in North East Didcot.
- Between 2023 and 2050, 8,405 homes will be built. The two sites where most of the new homes will be concentrated are Valley Park (>50%) and North East Didcot (<20%).

South Oxfordshire District Council, *Corporate Plan 2020-2024* (2020)

South Oxfordshire District Council have declared climate and biodiversity emergencies, and their *Corporate Plan 2020-2024* focuses on six key themes:

1. ***Protect and Restore our Natural World:*** The district, characterised by rural areas, needs protection and restoration of its natural environment, including Areas of Outstanding Natural Beauty (AONBs) – now termed "National Landscapes" as of November 22, 2023. The Council plans to connect urban communities with greenspaces and has been working with key partners to map and survey ecosystems, champion nature recovery, and establish a Local Nature Partnership.
2. ***Openness and Accountability:*** To navigate the complexity of local government and foster inclusivity, the Council aims to maintain high service satisfaction, encourage transparency and diversity, and engage effectively with residents and organisations.
3. ***Action on the Climate Emergency:*** Recognizing climate change as a significant challenge, the Council plans to lead by example, aims to be carbon neutral by 2030, support community planning for a climate-resilient future, and take action on sustainability in areas like housing and transport.
4. ***Improved Economic and Community Well-being:*** The Council will support small businesses, encourage cultural well-being, promote economic development, and address areas of isolation and deprivation.
5. ***Homes and Infrastructure that Meet Local Needs:*** The focus is on providing affordable, sustainable, and well-designed housing and infrastructure, ensuring accessibility and involving local communities in planning.
6. ***Investment that Rebuilds Our Financial Viability:*** Given financial challenges, the Council aims to explore new revenue sources, maximise external funding opportunities, and invest responsibly and ethically, especially with the climate emergency in mind.

The Corporate Plan outlines specific projects and metrics for each theme to measure success in various areas including biodiversity, public participation, and carbon emissions reduction. The Council is committed to working with partners and the community to achieve these objectives.

South Oxfordshire District Council, *Climate Action Plan 2022-2024* (2022)

South Oxfordshire District Council's *Climate Action Plan 2022-2024* emerged from engagement on the Council's Corporate Plan, where it was established that the climate emergency is a major concern of residents.

The Climate Action Plan outlines the Council's commitment to becoming carbon neutral by 2025. The Plan aims to reduce the Council's carbon emissions primarily from its own operations and serve as an example before working towards the district's carbon neutral target of 2030.

The Plan includes various initiatives, such as integrating climate considerations into their services, providing staff with climate-related training, maintaining sustainable buildings and land, and collaborating with the community and partners. It acknowledges the global context, national and regional policies, and the Council's existing efforts in addressing climate change. The Plan is comprised of actions categorised into seven themes based on the Council's five guiding principles:

- Political commitment to climate action
- Putting climate action at the heart of our decision making
- Working in partnership across the districts and county
- Commitment to inclusive engagement
- Influencing and providing advice

Vale of White Horse District Council, *Corporate Plan 2020-2024* (2020)

The Vale of White Horse District Council have declared climate and biodiversity emergencies, and their Corporate Plan for 2020-2024 outlines the Council's commitment

to building thriving local communities within ecological constraints and to tackle the climate emergency. The Plan focuses on reducing carbon emissions and how the Council can become carbon neutral by 2030. The Council's approach is inspired and driven by the concept of "place," emphasising place identity and enhancing access to services and employment, affordable and good quality homes, sustainable transport, and access to the natural environment. The Plan also focuses on stabilising the Council's finances, income generation, and balancing spending to available resources. They stress the importance of engaging with residents, nurturing existing local partnerships, and introducing and strengthening environmental policies for sustainable growth.

Vale of White Horse District Council, *Climate Action Plan 2022-2024* (2022)

The Vale of White Horse District Council has a commitment to becoming carbon neutral by 2030 with a 75% reduction in emissions by 2025. The Climate Action Plan details strategies to reduce carbon emissions by focusing on its operations, staff training, and land management and buildings. The Council aims to work closely with partners and communities. The Plan is rooted in the Corporate Plan and aligns with national and international climate goals. The Plan has been organised in the same manner as the South Oxfordshire District Council's Climate Action Plan, with actions categorised into seven themes underpinned by the five principles outlined above. Overall, the Plan emphasises a data-driven approach and acknowledges the need for collaboration and engagement to achieve its carbon neutrality goals.

South Oxfordshire and Vale of White Horse District Council, *South and Vale Joint Design Guide* (2022)

Available in a website format,[7] the South and Vale Joint Design Guide provides a framework to enhance design standards and achieve high-quality and sustainable development across various scales. Overarching objectives include delivering biodiversity net gain, linking to green and blue infrastructure, and designing for climate resilience. The Guide collates and replaces previous local design guides, aligns with the National Design Guide (2019), and complements other statutory plans and national guidance. It is a Supplementary Planning Document (SPD) and is referred to in the planning application process. The Guide details design principles – these are the criteria by which the Council passes applicants' designs.

Vale of White Horse District Council, *Local Plan 2031 Part 1: Strategic Sites and Policies* (2016)

The Vale of White Horse Local Plan 2031 provides a vision for development in the district until 2031, addressing housing, job placement, and necessary infrastructure. It aligns with national planning guidelines and incorporates input from the local community. The Vale is a unique area, combining natural beauty and rich heritage with a focus on science and technology. The Plan aims to make housing more affordable while protecting the district's historical and rural elements and promoting technology and innovation.

The Plan identifies key challenges and opportunities in four areas: building healthy and sustainable communities, supporting economic prosperity, supporting sustainable transport and accessibility, and protecting the environment and responding to climate change.

The Spatial Strategy, "Building on our Strengths," outlines where new homes, jobs, and infrastructure will be located, while the Plan's twelve strategic objectives guide development efforts. District-wide policies address housing mix, density, affordable housing, and economic development.

Vale of White Horse District Council, *Local Plan 2031 Part 2: Detailed Policies and Additional Sites* (2019)

The Vale of White Horse Local Plan 2031 Part 2 (LPP2) is introduced with a focus on meeting the needs of the community, providing infrastructure to support development, and

protecting the area's natural and historic assets from speculative development. It complements Part 1, adopted in 2016, by identifying housing sites and detailed policies. LPP2 addresses unmet housing needs for Oxford City, reflecting cooperation with the Oxfordshire Growth Board. The Plan is guided by and builds upon Part 1's Spatial Strategy and focuses on sustainable growth in the Science Vale area and promoting thriving villages while preserving the beauty of the countryside. LPP2 allocates additional sites for housing and supports the realisation of Didcot Garden Town. Core policies emphasise sustainable development and helping meet Oxford City's housing need.

South Oxfordshire and Vale of White Horse District Councils, *South and Vale Green Infrastructure Strategy* (2017)

The South and Vale Green Infrastructure Strategy for South Oxfordshire and Vale of White Horse District Councils focuses on the benefits, objectives, and mechanisms for delivering and managing green infrastructure until 2031. It promotes standards and proposals that aim to achieve the green infrastructure objectives:

- Support sustainable economic growth
- Improve health and wellbeing
- Increase biodiversity and access to nature
- Adapt to and mitigate the effects of climate change
- Reinforce and/or enhance local character

The Strategy outlines guidance for planners, developers, and local communities and includes checklists and design advice. This guidance helps to implement guiding principles for each of the above objectives.

The Strategy features an audit and analysis of existing green infrastructure assets, which were evaluated against Natural England's Accessible Natural Greenspace Standard (ANGSt) to identify deficits. Deficits were identified at all size classes of Accessible Natural Greenspaces (ANGs) but these deficits were variable across the study area. Deficits were also identified at the scale of each settlement, including Didcot and Sutton Courtney: a relatively large village located beside the Thames to the north-west of Didcot.

In terms of ANG deficits, Didcot had:[8]

- a partial deficit of 2ha+ sites within 300m
- a deficit of 20ha+ sites within 2km
- partial deficit of 100ha+ site within 5km

While Sutton Courtney had a partial deficit of all three classes of ANG.

Alongside stakeholder and public feedback, the findings inform a Strategic Green Infrastructure Network. The Network includes green and blue infrastructure and corridors, green access links, urban green grids, and conservation target areas.

More specific Networks are mapped for multiple settlements, including Sutton Courtney and Didcot. The Settlement Network for Didcot provides a framework for informing the Garden Town Masterplan and proposes green infrastructure opportunities. These include creating and maintaining new accessible natural greenspaces, such as through "transforming former gravel pits and working landfill areas [in the north of Didcot] into a substantial nature park."[9]

The ANG analysis informing the Settlement Network for Sutton Courtney reveals that access to natural greenspaces is unequally distributed between the north and south of the village. While the northern part of the village enjoys access to natural greenspace at all three size classes, the southern part of the village has limited access to smaller 2ha-20ha sites and lacks any at all to larger sites of 20-100ha and over 100ha. The green infrastructure opportunities proposed to address these inequalities include the creation and maintenance of new accessible natural greenspaces to the south of the village at all three size classes and the development and enhancement of access links between existing and new green infrastructure assets.[10]

Oxfordshire County Council, *Topic Paper: Strong and Healthy Communities* (2023)

Strong and Healthy Communities is a topic paper to support the development of Local Plans, AONB Management Plans and Neighbourhood Plans.[11] The Topic Paper emphasises the importance of planning and designing for sustainable communities that enable health and well-being through access to greenspaces, active transport, community engagement, and local health services. It recommends that Local Plans include Healthy Place Shaping Policies to build mentally and physically healthy communities, reduce inequalities, and contribute to overall well-being. The Topic Paper points to a set of healthy place shaping indicators that are in development which will aim to evaluate the impact of these policies over time.

Neighbourhood Plans

Since April 2012, local communities have had legal powers under the Localism Act of 2011 to produce Neighbourhood Plans for their communities. Neighbourhood Plans provide local people with an opportunity to have a greater say in shaping the places in which they live and work.

Since the granting of Royal Assent, 44 Neighbourhood Plans have been "made" across South Oxfordshire District and 26 made across the Vale of White Horse District.

Neighbourhood Plans almost invariably include the conservation of open spaces and protection of ecosystems as priorities for local people. As an example, Aim 1 (of 6) in the Little Milton Neighbourhood Plan is to "To maintain the atmosphere and sense of community of the village and conserve its historic and rural character" including the "conservation of open spaces and designation of sites for protection where appropriate." Aim 2 is to "conserve the local landscape and environment and to minimise the impact of development on the surrounding countryside, landscape and ecosystems."

Parish Councils commissioning Neighbourhood Plans could provide an important mechanism for the delivery of green infrastructure enhancements as these would reflect the principles of the Plan as well as the wishes of local residents.

Parish Councils with Neighbourhood Plans can access 25% of Community Infrastructure Levy sums raised from developers in accordance with the Community Infrastructure Levy (CIL) formula determined by a Local Planning Authority. CIL resources can be deployed for the delivery of green infrastructure enhancements as defined in the Planning Act of 2008.

Oxfordshire County Council, *Strategic Active Travel Network (SATN)* (2023)

The *Strategic Active Travel Network* (SATN) "is a long-term plan for a network of walking and cycling routes across Oxfordshire."[12] The SATN aims to develop a comprehensive active travel network to transform travel patterns and promote active travel, especially in rural areas. It seeks to align with existing strategies, engage stakeholders and assess existing infrastructure and demand.

Oxfordshire County Council, *South Oxfordshire District Summary* (2021)

The *South Oxfordshire District Summary* is a summary report providing an overview of data from the Joint Strategic Needs Assessment (JSNA) 2021 Oxfordshire report. The Summary provides essential information about South Oxfordshire's demographics, health, inequalities, and economic conditions.

The key areas include:

- Historical and projected population change
- Public Health England 2021 health summary
- Key health and wellbeing facts and figures 2021
- A district inequalities summary (tartan rug)
- Indices of Multiple Deprivation 2019

Key statistics from the executive summary include:

- In 2019, South Oxfordshire had a population of 142,000 residents.
- The population is projected to increase by +14% by 2028, with substantial growth expected in the Didcot area.[13] The population of Didcot and the surrounding area is expected to grow by +32% by 2028.[14]

In terms of inequalities, Didcot South East, Didcot West, Berinsfield & Wittenham, and Chalgrove, Stadhampton & Dorchester are areas with the most indicators that are significantly worse than average. However, parts of Didcot, Thame, Henley-on-Thames, Wallingford, and Wheatley, are among the least deprived.

Oxfordshire County Council, Vale of White Horse District Summary 2021 (2021)

The Vale of White Horse District Summary is a summary report providing an overview of data from the JSNA 2021 Oxfordshire report. The Summary provides essential information about the demographics, health, inequalities, and economic conditions of the Vale of White Horse.

Similar to South Oxfordshire, the population of the Vale of White Horse is expected to rise. Housing-led forecasts show a population increase of +24% by 2028.[15] The area west of Didcot, which includes the major Valley Park development, is expected to nearly double in population, from 12,100 to 22,200.[16] The Indices of Multiple Deprivation 2019 data indicate a decrease in relative deprivation for Vale of White Horse, ranking 305th out of 317 local authorities.

South Oxfordshire and Vale of White Horse District Councils, South Oxfordshire and Vale of White Horse – Analysis of Key Health Data (2023)

This document analyses key health data for the South Oxfordshire and Vale of White Horse districts. It draws out data from the Oxfordshire Local Area Inequalities Dashboard to identify areas where South Oxfordshire and Vale of White Horse perform below national or Oxfordshire averages. The data covers categories such as adult and child health, deprivation, and mortality. In South Oxfordshire, multiple areas, including Berinsfield & Wittenham and Didcot South East, perform below the Oxfordshire average, particularly in health and mortality indicators.

South Oxfordshire District Council, Bridging the Leisure Gap: Leisure Facilities Strategy (2011)

The Leisure Facilities Strategy outlines substantial proposals for new leisure and recreation facilities so that when funds become available they can be channelled into projects prioritised for having the greatest impact. The Strategy gives guidance to independent organisations on funding sources and advises on developer contributions for section 106 agreements. The Strategy's main objective is to identify the key needs and priorities for facility provision from 2010 to 2026 and set a strategic direction to inform future facility investment.[17]

Local

Oxford Consultants for Social Inclusion (OSCI), Local Insight Profile for "Didcot Garden Town" Area (2023)

Local Insight is a tool developed by Oxford Consultants for Social Inclusion (OSCI), they collect data published by more than 50 government agencies and organise it into key indicators. There are two reports, one comparing Didcot Garden Town data with the rest of England, and the other to the rest of Oxfordshire. The table on the right (Table 1) collates the summaries for both reports.

Table 1: Summaries of data comparing Didcot to England and the rest of Oxfordshire

Indicator	Didcot Garden Town	Oxfordshire	England
Population	There are 35,846 people living in Didcot Garden Town	–	–
Vulnerable Groups	**12%** of children aged 0-19 are in relative low-income families	compared with **12%** across Oxfordshire	compared with **20%** across England
Housing	**1%** of households lack central heating	compared with **1%** across Oxfordshire	compared with **2%** across England
Crime & Safety	–	The overall crime rate is lower than the average across Oxfordshire	The overall crime rate is lower than the average across England
Health & Wellbeing	**14%** of people have a limiting long-term illness	compared with **15%** across Oxfordshire	compared with **17%** across England
Education and Skills	**13%** of people have no qualifications	compared with **14%** across Oxfordshire	compared with **18%** across England
Economy	**51%** people aged 16-74 are in full-time employment	compared with **38%** across Oxfordshire	compared with **34%** across England
Access & Transport	**14%** of households have no car	compared with **16%** across Oxfordshire	compared with **24%** across England
Communities & Environment	–	The % of people "satisfied with their neighbourhood" (**90.5%**) is higher than the average across Oxfordshire (**86.5%**)	and higher than the average across England (**79.3%**)

Oxfordshire County Council, *(Draft) Didcot Placemaking Strategy* (2022)

The Didcot Placemaking Strategy builds upon the aspirations established by the Didcot Garden Town Development Plan and outlines a comprehensive Strategy for transforming Didcot Central Corridor into a more sustainable, connected, and welcoming place. The Strategy focuses on three central routes within Didcot: the Gateway Spine, the Cultural Spine, Foxhall Road (B4493), and the triangular area encompassed by these routes (see Fig. 3).[18]

The Character Areas of Didcot Central Corridor are assessed and their strengths, weaknesses, and opportunities identified. Three key themes are introduced: Place and Space, Connectivity and Wayfinding and Transport Infrastructure, which were gleaned from stakeholder engagement, research, and site audits. These findings inform the Placemaking Strategy which outlines key opportunities and ambitious concepts aiming to enhance the Town's public realm and gateways, increase green and blue infrastructure, and reduce traffic dominance. This strategy is included in the new 2022 DGT Delivery Plan. This draft Strategy has yet to be adopted by the County Council or endorsed by the District Councils within Oxfordshire, with responsibility for approving this draft Strategy lying with Oxfordshire County Council.

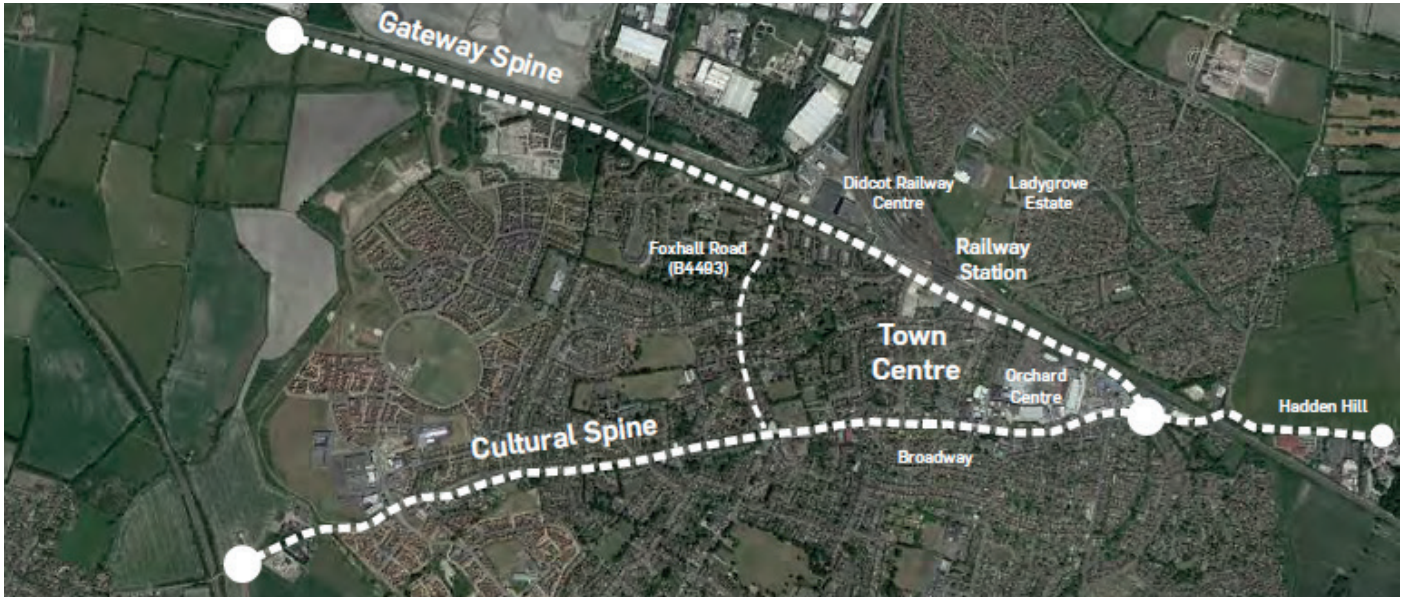


Figure 3: Didcot central corridor

DGT Local Cycling and Walking Infrastructure Plan (LCWIP) (2023)

South Oxfordshire District Council and Vale of White Horse District Council funded the development of the LCWIP as part of the DGT (Didcot Garden Town) delivery project. At time of writing, the LCWIP is currently being endorsed and becoming adopted. The LCWIP aims to provide better links of cycling, walking and wheeling within Didcot as well as the wider area, including surrounding villages and new developments. Cycling and walking improvements are to be identified at the local level and connectivity is to be enhanced.[19] New routes for both leisure and commuting are to be identified. Emphasis is on ensuring the vision is community led and that provisions cater to all abilities.

LCWIP "will prioritise two areas of [South Oxfordshire District Council's] corporate priorities. Looking at the climate emergency by reducing car dependency and congestion on the roads and improving the health and wellbeing of residents with better cycling routes and providing safer, more accessible areas to walk."[20]

Oxfordshire Treescape Project, *Opportunity Report for Didcot Garden Town* (2022)

Oxfordshire Treescape Project have published two reports for Didcot, one studying the area within masterplan boundary and the other the area of influence. The reports identify opportunities for new treescapes (treescapes include new woodland, areas of species-rich grassland, hedgerows, community orchards, and agroforestry) via a series of maps. The reports make reference to the Draft Oxfordshire Nature Recovery Network,[21] which impacts on treescape placement.

Many of the areas where Oxfordshire Treescape Project suggest the introduction of woodland for multiple location-specific benefits fall within the Valley Park Development site, located in the southwest part of the Town. Here, new accessible natural greenspaces are proposed.

***East Hagbourne: Design Guide Including Design Codes* (2022)**

The Design Guide for East Hagbourne complements the South and Vale Joint Design Guide (2022) outlined above and provides guidance for the needs of East Hagbourne parish more specifically and on a local scale. The Design Guide report provides an analysis of the local character of East Hagbourne across four branches of study: access and movement, land-based designations, historic evolution and settlement pattern, and character areas (of which there are seven[22]). Following this, the report introduces three design codes: DC.01 Design and Character, DC.02 Built Form, and DC.03 Environment and Sustainability.

Oxfordshire County Council, *Didcot: Community Profile of Health and Wellbeing Evidence* (2021)

Didcot: Community Profile of Health and Wellbeing Evidence is a report providing health and wellbeing evidence for Didcot from the Oxfordshire JSNA.[23] An overview of the summary is as follows:

- From mid-2009 to mid-2019, the population increased by +13%. During this period, the population aged 15-19 and 40-44 declined by 18% and 24%, while the number of people aged 70-74 increased by 27%.
- At the time of the 2011 Census, Didcot had a 9% ethnic minority population compared to 9% in South Oxfordshire, 16% in Oxfordshire, and 20% in England.
- Didcot is relatively un-deprived, with no areas ranking among the 10% most deprived nationally. Compared to Oxfordshire, Didcot South had the highest child poverty prevalence at 13%, but this figure is in relation to Oxfordshire as opposed to England as a whole.
- Health indicators in Didcot wards were generally similar to or better than the England average, except for some exceptions in colorectal cancer, all-cause deaths, circulatory disease deaths, and child development at age 5.
- The prevalence of depression was well above county and national averages.
- Levels of adult physical activity were above the national rate but less than the district and county rates.
- Child obesity rates were similar to the national average, except in Didcot South where it was above the district average.
- House prices for semi-detached housing in Didcot increased over the past five years.

Vale of White Horse District Council, *Didcot Garden Town Delivery Plan* (2017)

The Didcot Garden Town Delivery Plan outlines a vision to transform Didcot into a vibrant and sustainable community with a lean towards science and nature. It is a non-statutory planning document but "provides an aspiration for the form and direction of [Didcot's] expansion."[24] The Plan focuses on high-quality public spaces, social connections, and sustainable development. It reflects feedback from various stakeholders and includes strategies for housing diversification, infrastructure development, and economic growth. It emphasises creating better links to the science and technology campuses of Science Vale, the countryside, and improving local transport. To achieve this vision, several key proposals are included, such as infrastructure improvements, enhanced

cycleways and walkways, and upgrading streets for cyclist safety.

Notably, the Plan contains information on the Garden Line, "a sustainable and largely traffic free connection between Culham Science Centre in the North and Harwell Campus in the south, via the heart of Didcot, whilst also improving access to Didcot's natural surroundings."[25]

The Didcot Garden Town masterplan covers a broad area, with the "area of influence" extending to the major science campuses, natural landscape features, and surrounding villages. The masterplan is a blueprint for the Town's development over the next two decades, focusing on mobility, connectivity, and inclusivity as its central principles.

South Oxfordshire District Council, *Didcot Greenspace Network – Feasibility Study* (2008)

The Didcot Greenspace Network Feasibility Study explores the need for and feasibility of enhancing natural greenspace in and around Didcot due to expected population growth. The study area encompasses the Didcot urban area and extends 10-12km beyond this. The Study features an audit of Accessible Natural Greenspaces (ANGs), each of which is assessed by Natural England's Accessible Natural Greenspace Standard (ANGSt). The findings elucidated a substantial deficiency in the provision of ANG for Didcot.[26] For instance at time of publication 79% of Didcot's population lacked access to natural greenspaces of at least 2ha within 300m.

The findings of the audit and assessment together with feedback from community engagement and stakeholder consultation inform the distinction of six potential zones to provide new ANGs in and around Didcot. The suitability of each zone is assessed by potential to enhance biodiversity, landscape character, and accessibility. Three options are promoted for their potential to meet shortfall in greenspace and biodiversity targets while maintaining landscape character. The Study advises that the other options remain potential choices post-2026.

Similarly, five indicative routes for new greenways are identified, with the suitability of each assessed by potential to:

- Link ANGs
- Link Communities
- Link Communities to ANGs
- Address Strategic Gaps/Missing Links

Four of these greenways are deemed to provide significant opportunities to contribute to the above aims. One such greenway is a route to link northern Didcot with Sutton Courtenay. This link would be part of future plans for the reclamation of the gravel pits to the north of Didcot Power Station.[27]

Designations

There is a Local Nature Reserve within the boundary of Didcot Garden Town (Mowbray Fields) and a second site (Sutton Courtenay Environmental Centre) just outwith the boundary but within the area of influence (see Figure 4). Also with the area of influence are two SSSIs, namely Little Wittenham and Culham Brake (see Figure 5).

Figure 4: Locations of Local Nature Reserves

Figure 5: Locations of SSSIs

3.2.2 Principles for green infrastructure provision

The review of the strategic context for the Green Infrastructure Strategy suggests five key principles that should underpin green infrastructure provision across Didcot:

1. ***Public benefit for all***
   Green infrastructure should deliver recreational, health and wellbeing, and environmental benefits for all of Didcot's residents to ensure inclusivity. All residents should have access to restorative greenspace within a 15-minute walk of their home.

2. ***An evidence-based approach***
   Proposals for green infrastructure provision should be based on robust evidence and analysis that is regularly reviewed and updated.

3. ***Long term provision***
   Green infrastructure provision should be sustainable in the long term to deliver benefits over time, adapted to the impacts of climate change.

4. ***Net benefits for the environment***
   Green infrastructure should deliver sustained biodiversity net gain compared to a baseline assessment.

5. ***Connectivity and multi-functionality***
   Green infrastructure can be enhanced if it is considered as a mosaic of inter-connected spaces that constitute a robust network. Green infrastructure is multi-functional and can deliver multiple benefits across a network.

3.3 Typology classifications

Figure 6 on the following page depicts total green infrastructure provision across Didcot, including both publicly accessible and private space that is not accessible to the public. Figure 6 also includes green infrastructure "to be developed." Figure 7 shows publicly accessible green infrastructure across Didcot.

The mapping uses a standard set of typological definitions for different types of green infrastructure asset classes. These are defined in the glossary in Appendix 3.

The distinction between publicly accessible greenspace and private greenspace (not publicly accessible) is significant in defining the extent to which different assets can reflect the green infrastructure principles set out in Section 3.2.2. Both publicly accessible and private greenspace can deliver against Principles 2-5. Private green infrastructure can play an important role in developing effective green infrastructure networks and in supporting biodiversity net gain. Publicly accessible greenspace can deliver comprehensively against Principle 1, especially in the context of benefits for health and wellbeing.

3.3.1 Typologies and accessibility

A key objective of the Strategy is to identify areas across Didcot where there is under-provision in publicly accessible green infrastructure provision. Where additional new provision is not possible, these deficits in provision can be partially addressed by forging stronger physical connections between different assets to address Principle 5.

Some green infrastructure typologies (parks and gardens; playgrounds; allotments; and accessible natural greenspace) define catchment areas that are commonly used in a planning policy context. The catchment areas are usually adjusted for major physical barriers (e.g. major transport infrastructure, water courses and water bodies).

The catchments that have been defined for their respective typologies are set out in the table to the right (Table 2). No equivalent catchment areas have been developed and adopted for other green infrastructure typologies.

By mapping the standard catchments for these different typologies, it is possible to map overall green infrastructure provision across Didcot and to identify areas of deficit of provision overall and deficit of provision for specific typologies.

3.4 Review of mapping data

A thorough review of GIS data held by the Didcot Garden Town project team is summarised in Table 3 on page 23.

The data suggests that Didcot has 235.40 ha of accessible green infrastructure, which equates to a rate of provision of 6.57 ha per 1,000 head of population in 2023. Given an increase in population to 62,000 by 2031, this rate of provision will decrease to 3.79 ha per 1,000 of population. This will be slightly offset by new green infrastructure being provided through new housing developments (approximately 107.10 Ha, with 82.90 being publicly accessible), which provides an amended rate of provision of 5.13 ha per 1,000 head of population.

Typologies with defined catchments based on recommended standards

Typology class	Typology	Size (hectares)	England
Parks and Gardens*	**Regional**	400 ha	3.2 – 8 kms
	Metropolitan	60 ha	3.2 Kms
	District	20 ha	1.2 kms
	Local	2 ha	400 metres
	Small	<2 ha	<400 metres
	Pocket	<0.4 ha	<400 metres
Playground**	**LAP**	0.1 ha	100 metres
	LEAP	0.4 ha	400 metres
	NEAP	1 ha	1 km
Allotments***	**Allotments**	-	1 km
Accessible natural greenspace****		2 ha and over	300m
		20 ha and over	2 Km
		100 ha and over	5 Km

* London Plan standard
** Fields in Trust Guidance for Sport and Play standard
*** National Allotment Society Standard
**** Natural England ANGSt standard

Table 2: Typologies with defined catchments

Figure 6: Total green infrastructure provision across Didcot

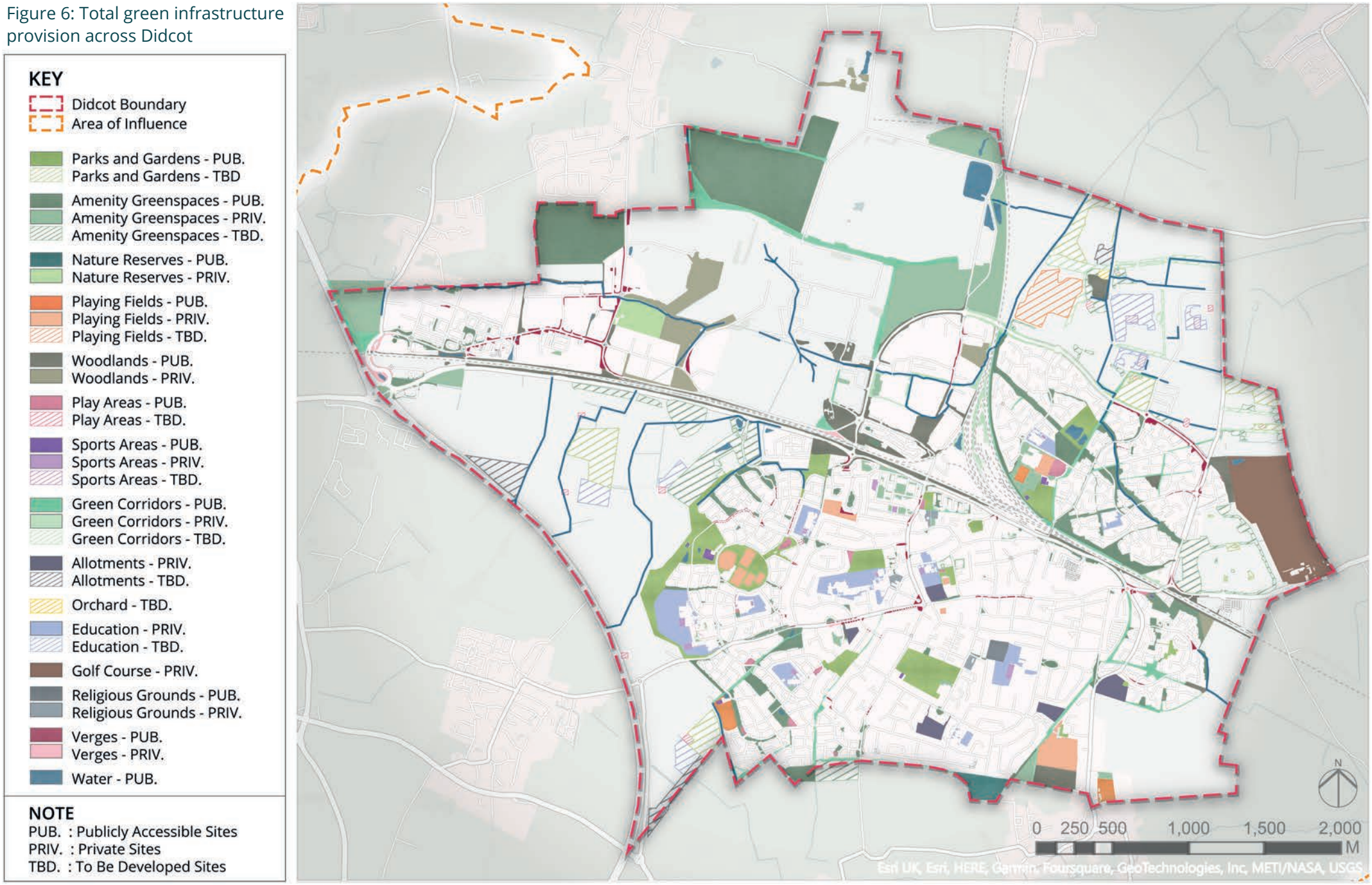
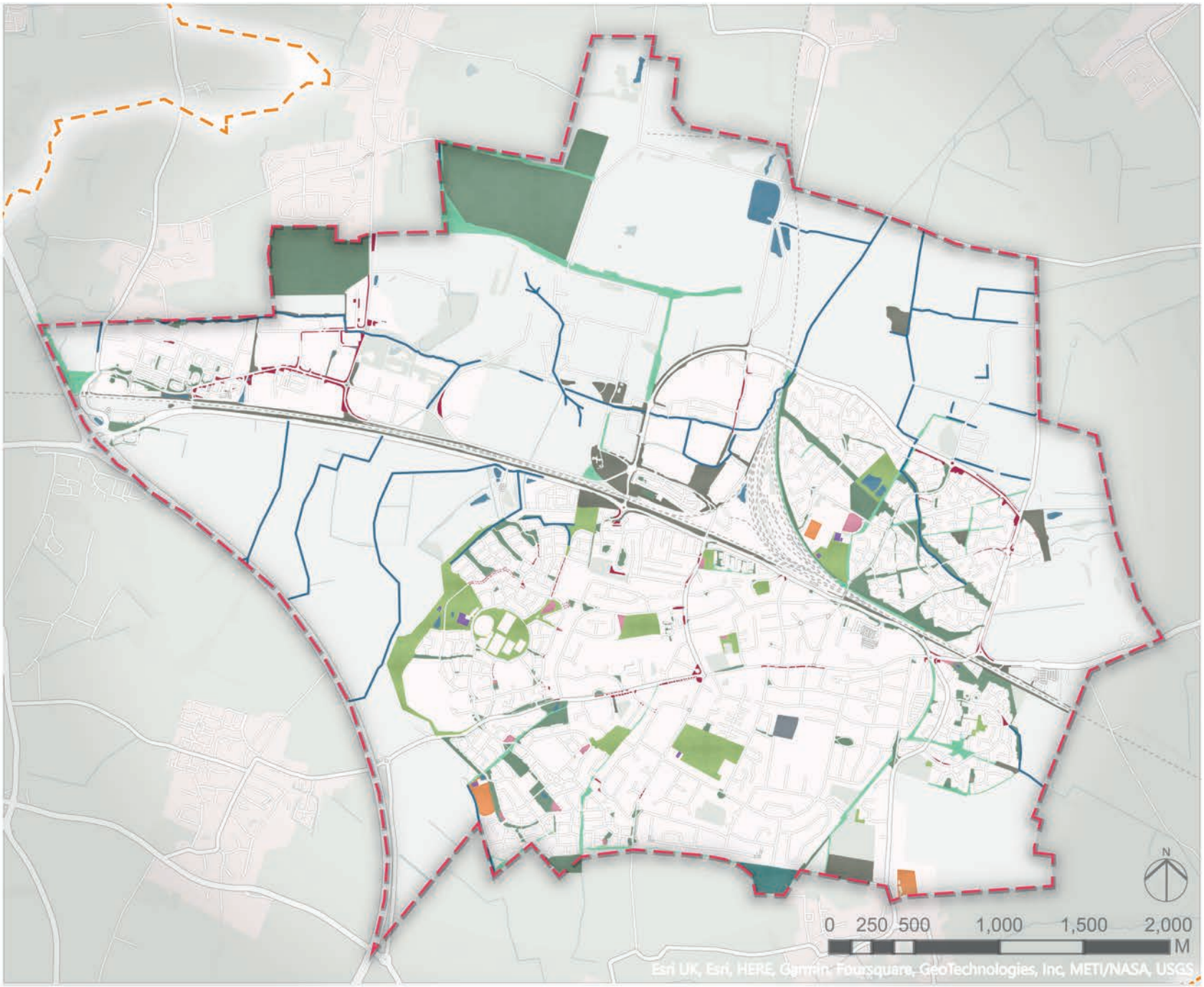


Figure 7: Publicly accessible green infrastructure provision across Didcot



3.4.1 Distribution of green infrastructure

A1834 Didcot
Green Infrastructure GIS Data

	Number of assets TOTAL	Area (ha) TOTAL	Number of assets 'To be developed'	Area (ha) 'To be developed'	Number of assets *'Existing'*	Area (ha) *'Existing'*	Number of assets *'Existing PRI'*	Area (ha) 'Existing PRI'	Number of assets 'Existing PUB ACC'	Area (ha) 'Existing PUB ACC'
Amenity Greenspace	**138**	**196.67**	15	35.46	123	161.21	25	56.25	98	104.97
Parks and Gardens	**28**	**67.54**	10	26.44	18	41.09	0	0.00	18	41.09
Playgrounds	**32**	**5.44**	16.00	2.07	16.00	3.37	0.00	0.00	16.00	3.37
LAP	**10**	**0.76**	8	0.71	2	0.05	0	0.00	2	0.05
LEAP	**10**	**1.32**	2	0.20	8	1.12	0	0.00	8	1.12
NEAP	**12**	**3.36**	6	1.16	6	2.20	0	0.00	6	2.20
Playing Fields	**12**	**25.51**	1	9.68	11	15.83	7	11.77	4	4.06
Sports	**23**	**3.63**	3	0.98	20	2.65	11	1.56	9	1.09
Allotments	**8**	**16.94**	3	9.48	5	7.46	5	7.46	0	0.00
Nature Reserve	**2**	**9.86**	0	0.00	2	9.86	1	5.97	1	3.89
Woodlands	**31**	**58.94**	0	0.00	31	58.94	7	20.65	24	38.29
Verges	**54**	**8.51**	0	0.00	54	8.51	6	1.67	48	6.85
Green Corridors	**29**	**46.46**	4	7.81	25	38.65	4	8.45	21	30.21
Water	**26**	**8.84**	/	/	/	/	/	/	/	/
Education Grounds	**18**	**37.45**	6	14.71	12	22.73	12	22.73	0	0.00
Religious Grounds	**4**	**2.95**	0	0.00	4	2.95	3	1.36	1	1.59
Orchard	**1**	**0.93**	1	0.46	0	0.00	0	0.00	0	0.00
Golf Course	**1**	**61.46**	0	0.00	1	30.73	1	30.73	0	0.00
Total Area (ha) GI		**551.12**	Total Area (ha) GI 'To be developed'	**107.10**	Total Area (ha) GI 'Existing'	**403.99**	Total Area (ha) GI 'Existing PRI'	**168.59**	Total Area (ha) GI 'Existing PUB ACC'	**235.40**

Table 3: Green infrastructure GIS data - All Typologies

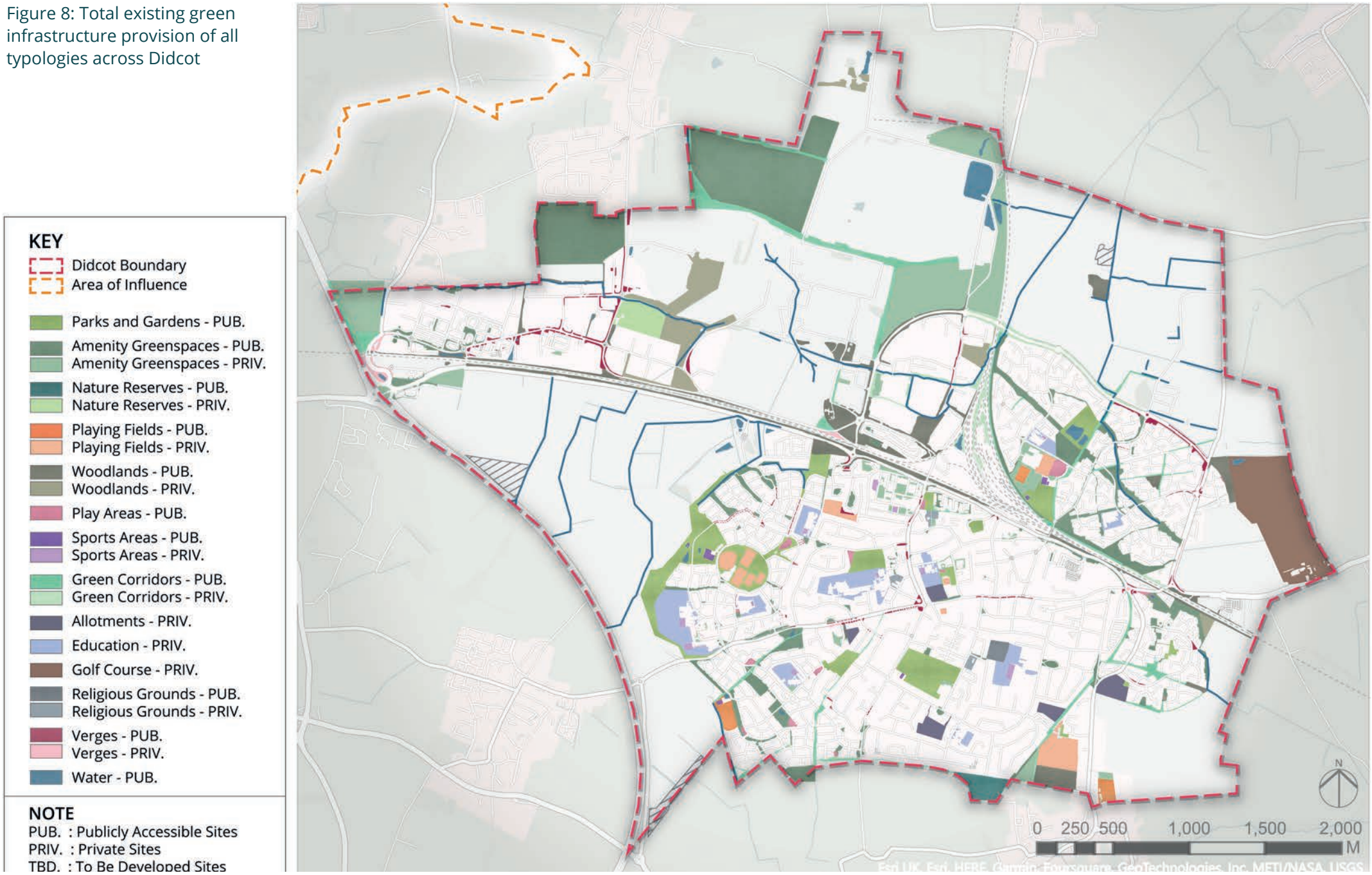
3.5 Baseline and needs assessment

3.5.1 Current green infrastructure offer

Figure 8 illustrates the current distribution of green infrastructure of all typologies across Didcot. Please refer to Appendix 1 for all green infrastructure maps.

For the purposes of this study, Didcot has been divided into 5 segments: north west, north east, south west, south east and central Didcot. The characteristics of green infrastructure provision across these segments are described from page 26 onwards.

Figure 8: Total existing green infrastructure provision of all typologies across Didcot



North-west Didcot

North-west Didcot (north of the London-Bristol main line railway and to the west of the A4130 and mainline to Oxford). This area is dominated by the Didcot A (removed) and Didcot B (operational) power stations and to the west by the Milton Park Science and Technology Park.

Green infrastructure provision is characterised by large blocks of greenspace, including the Sutton Courteney Nature Reserve, extensive areas of agricultural land to the north of Milton Park (connecting to open countryside to the west of Sutton Courteney) and open land to the east of the A34. The Milton Park Science and Technology Park has been extensively laid-out with wide, tree-lined verges interspersing the large commercial units that are typical of the development.

Green infrastructure opportunities present across the northern part of this segment, connecting the UK Biodiversity Action Plan priority habitat area at Milton Nature reserve to the south of Sutton Courtenay, open countryside around Steventon and Milton Hill and to the north of North Wessex Downs AONB to the south.

North-east Didcot

North-east Didcot (north of the London- Bristol main line railway and east of the A4130 and Oxford mainline). This area is effectively bifurcated by the Didcot to Oxford railway corridor. The area to the west of the line consists of a number of industrial estates to the east of the A4130 and along Collett and Hawksworth. Three semi-contiguous area of greenspace lie to the east and west of Collet (none of which have public access), connected by narrow corridors of woodland. A single railway bridge connects this zone to the Ladygrove Estate to the east.

The north-east Didcot extension is providing 1,800 new dwellings and is currently under construction. The development site includes on its western edge: playing field provision, a new nature park (of Local Park scale), retained farmland and retained woodland.

The Ladygrove area to the west is an area of low-rise residential housing with a central spine of greenspace that includes Ladygrove Hill, the Willowbank Leisure Centre, Didcot Town Football Club and the open space surrounding Ladygrove skatepark. An open pylon corridor running north-west to south-east bisects this central spine, connecting it to the development site to the east of Abingdon Road in the east with a green route running along the east side of the Oxford mainline. NCN Route 5 runs along the north-west section of this spine, connecting Didcot to the Thames at Long Wittenham and to Wittenham Clumps. The aspirational Garden Line route connects Culham Science Centre, Didcot and Harwell Campus. A further connecting green corridor runs along the northern edge of the main east-west railway corridor, connecting the central spine to central Didcot via the Cow Lane underpass.

The Ladygrove estate is extensively laid-out with significant tree and shrub planting and a proliferation wide short grass verges. As the centre of the Ladygrove estate is prone to flooding from the Ladygrove Brook, the central spine and generous proportioning of roads and verges provide opportunities for SuDS and flood attenuation. Captured surface water could be diverted to the Ladygrove fishing lakes to address eutrophication issues in these water bodies.

46.7 ha of new green infrastructure provision is planned for the housing allocation areas to the north and east of Ladygrove.

South-east Didcot

South-east Didcot (south of the London-Bristol main line railway and east of Haydon Road and Newlands Avenue) is an area of low density housing interspersed with greenspace, schools, Didcot's largest allotment and local centres. The area contains some of Didcot's most deprived neighbourhoods (South Oxfordshire 013B, 013C, 014B, and 014C), although these only form part of a cohort of the 50% most deprived neighbourhoods in England in 2019.

Green infrastructure provision varies across the area – more recent housing to the east of Jubilee Way is set amongst reasonably extensive areas of amenity greenspace. Housing area to the west of Jubilee Way, although low density, is most densely developed with little or no amenity greenspace between housing areas. There is minimal street tree planting in these areas and road verges are limited, apart from the more generously proportioned Park Road. Open space provision is limited to the major park Edmonds Park (which as a Local Park has a 400-metre catchment area) and the featureless oval greenspace at "The Croft." The southern most edge has access to both the local nature reserve Mowbray Fields as well as access to one of the largest public woodlands in Didcot, Millennium Wood.

National Cycle Network Route 544 runs south-west from the Broadway/Jubilee Way roundabout to East and West Hagbourne to the south of Didcot and to Wantage to the west. The route follows a former railway line and is, in the most part, in a cutting with relatively unmanaged vegetation on the cutting embankments. Together with the absence of lighting (along most of its length) and signage make this a potentially unsafe route, especially for women and girls. The route joins a westward spur at Mowbray Fields Nature Reserve that extends as far as the new developments at Nuthatch End (although it is discontinuous across Mowbray Fields). The route is narrow, unlit and has a poor surface quality.

South-west Didcot

South west Didcot including Harwell (south of the London-Bristol main line railway and west of Haydon Road and Newlands Avenue).

In common with south-east Didcot, the south-west quarter of the Town consists largely of low-density low-rise housing. Great Western Park is the first westerly extension of Didcot, providing 3,300 new dwellings and is largely built out. Valley Park to the west is under construction and will provide a further 4,250 dwellings.

This area of Didcot has a greater range of green infrastructure provision including a number of public parks (Boundary Park, Neighbourhood Park, Loyd Recreation Ground, Robin Way) and a number of private sites of significant scale (Didcot Girls School, Aureas Secondary School, Stephen Freeman Community Primary School, Harrier Drive playing fields). Valley Park will provide two new parks (Common Park and Alma Park) and two new allotment sites.

The low density character of existing housing and new development provides opportunities for green infrastructure connectivity (especially along the generously-dimensioned main road). Street tree planting, SuDS, active management for biodiversity and active travel infrastructure are intermittent.

Central Didcot

Central Didcot (south of the London-Bristol main line railway, north of Broadway and east of Foxhall Road).

An area consisting of four distinct character areas: a residential area to the west, a high street area along Broadway, an access spine along Station Approach and town centre shopping zone centred on the Orchard Centre.

In common with the remainder of south Didcot, the residential areas of central Didcot consist of low-density, low-rise housing. There is a dearth of street tree and other planting to provide green linkages between areas. The western segment of this character area includes a number of public open spaces (Cronshaw Close Park and Great Western Drive Park) but there is no equivalent provision close to the Town centre. The main access roads (Broadway, Haydon Road, Edinburgh Road) are generously proportioned but are (with the exception of the south side of Broadway) devoid of green infrastructure connectivity. While some active travel capacity is provided on the approach to the station, the physical separation effected by Station Road and its traffic and the impact of buildings and rear garden frontages on the south side of the road makes this a hostile environment for pedestrians and cyclists.

Within the Town centre (the Orchard Centre and its environs) green infrastructure provision is limited to a few areas of isolated decorative horticulture used as settings for buildings and the retail experience. Street trees are few and far between and there is no green connectivity between this area and the suburban areas to the south.

3.5.2 Deficiency, accessibility and connectivity

Accessibility

Figures 9 to 12 show the accessibility thresholds for each typology of green infrastructure to which an accessibility threshold is commonly applied (see Table 3 Section 3.4). Figure 13 shows all of these thresholds areas in combination. The accessibility thresholds have been modified to account for major accessibility barriers such as major transport corridors and natural features.

While this methodology for assessing accessibility only applies to some typologies of green infrastructure, this analysis is useful in identifying areas of Didcot with low levels of provision in respect of accessible greenspace. These typologies are also significant in that they address all five of the green infrastructure principles described in Section 3.2.2. and are particularly useful in assessing the health benefits of greenspace.

The mapping demonstrates that there are deficits of provision of green infrastructure of these typologies as follows:

- Parks and gardens: Central Didcot and the southern area of Ladygrove are deficient in access to parks. North-west Didcot has a significant deficit in park provision.
- Playgrounds: central Didcot has a deficiency in playground provision. Valley Park (as currently planned) has a deficiency in playground provision. North-west Didcot has a significant deficit in playground provision.
- Natural greenspace: Didcot only has one designated natural greenspace but Sutton Courtenay Environmental Centre has been included for the purposes of this assessment (although it is not publicly accessible in context of definitions in this report). As a consequence, most of Didcot lacks access to accessible natural greenspace.
- Allotments: significant areas of Didcot lack allotment provision. Most of Great Western Park, Ladygrove and North-west Didcot have a significant deficit in allotment provision.

With all typologies combined, the accessibility analysis suggests that apart from Sutton Courtenay Environmental Centre (which is not a publicly accessible site) north-west Didcot has significant under-provision in all typologies of green infrastructure. Central Didcot also has significant under-provision for all typologies other than allotment provision.

North-west Didcot is primarily a non-residential zone of Didcot and as a consequence, park and playground provision could be a low priority in planning terms. However, positive health outcomes could still be provided for people working in Milton Park and its environs and ecosystem service flows other than those related to health (e.g. biodiversity connectivity and climate change resilience) could also be provided in this area. North-west Didcot presents an opportunity to provide new connected green infrastructure assets that could enhance natural greenspace provision, support biodiversity outcomes and serve the greenspace needs of the whole town.

Deficiencies in provision across central Didcot could be addressed through more extensive greening of current grey areas around the Orchard Centre and surrounding street. The installation of additional tree planting and connected areas of planting would help to alleviate the car-dominated urbanicity of this area.

Figure 9: Parks and gardens accessibility buffers

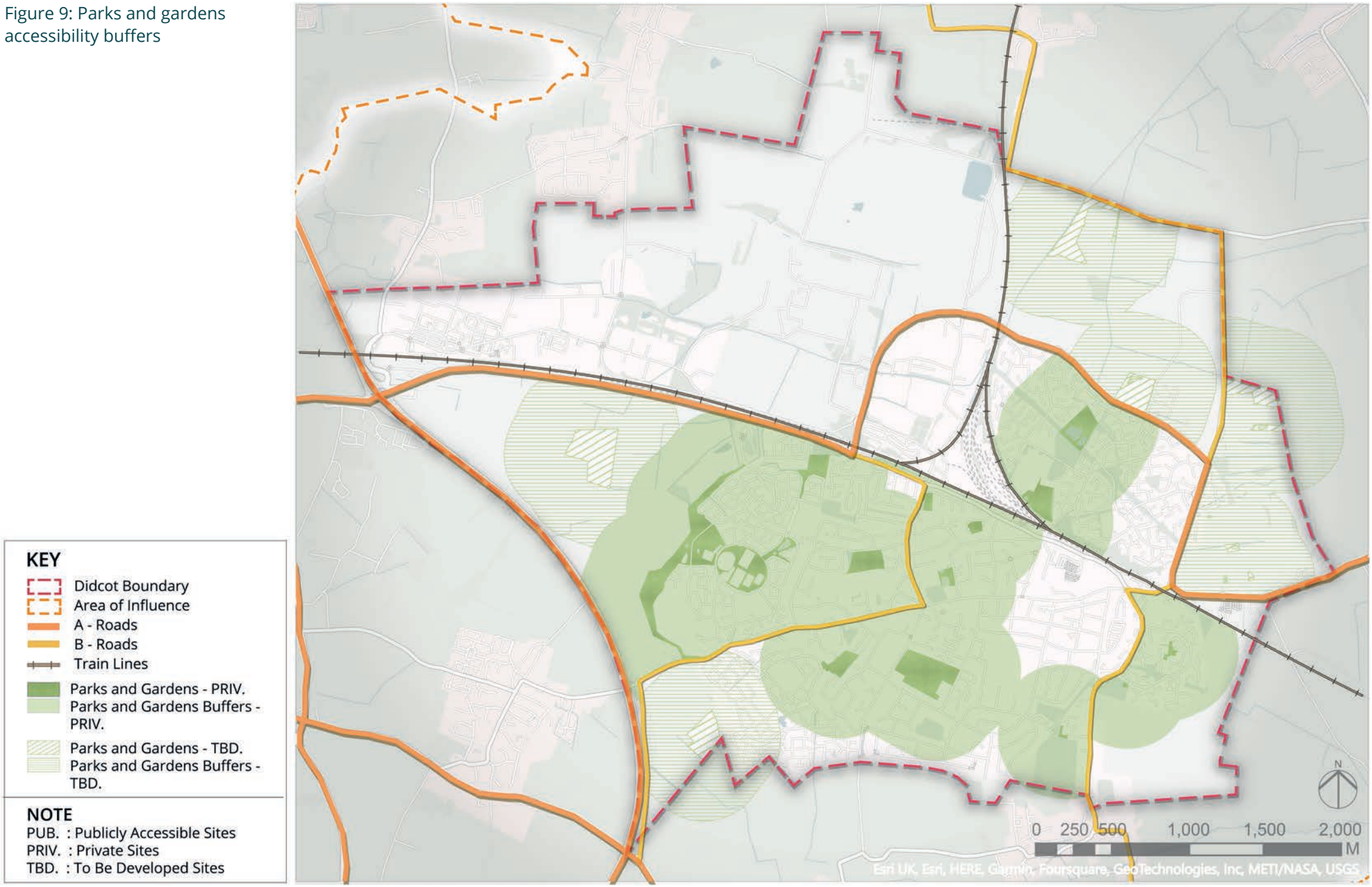


Figure 10: Playground accessibility buffers

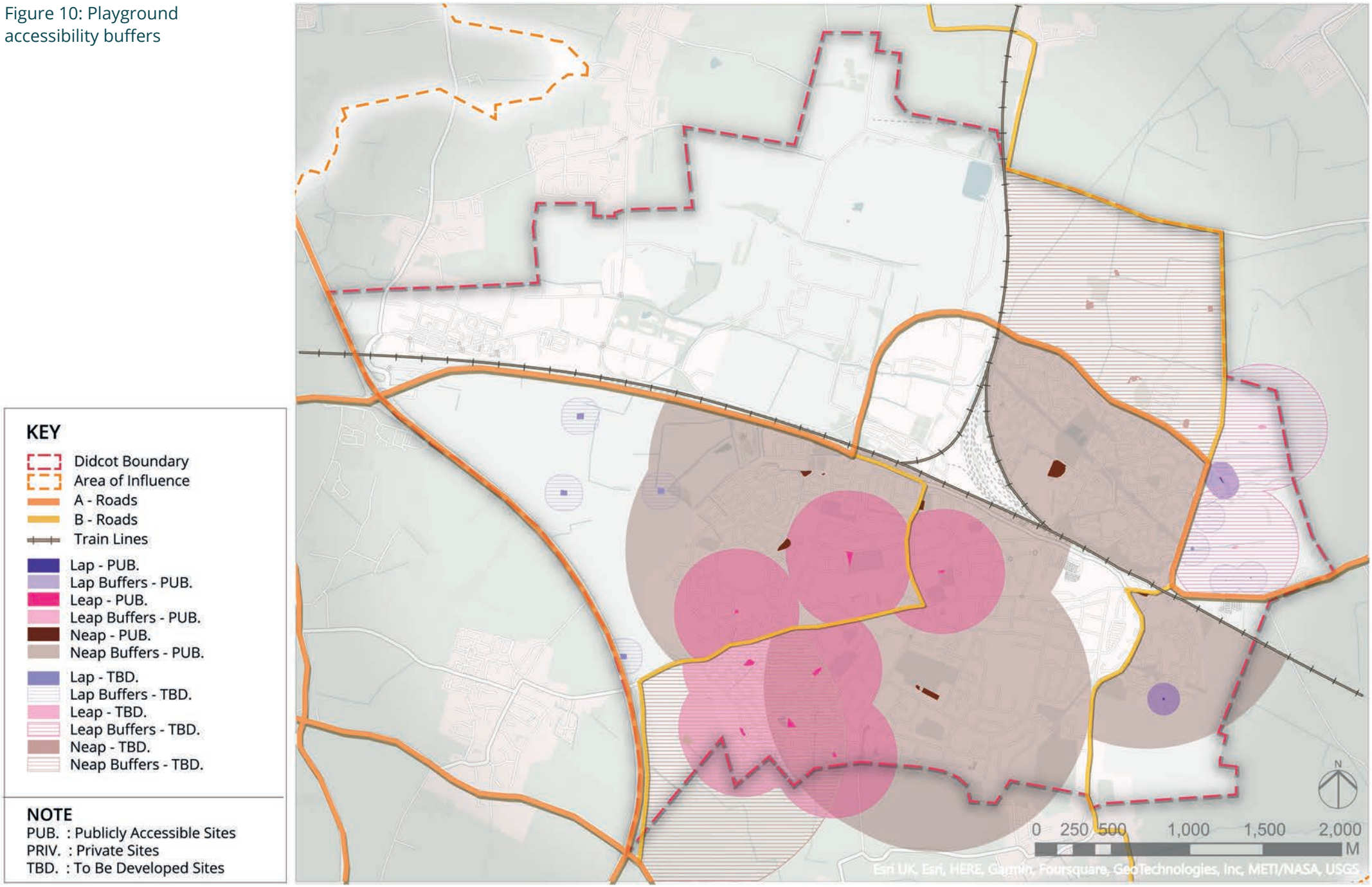


Figure 11: Natural greenspace accessibility buffers

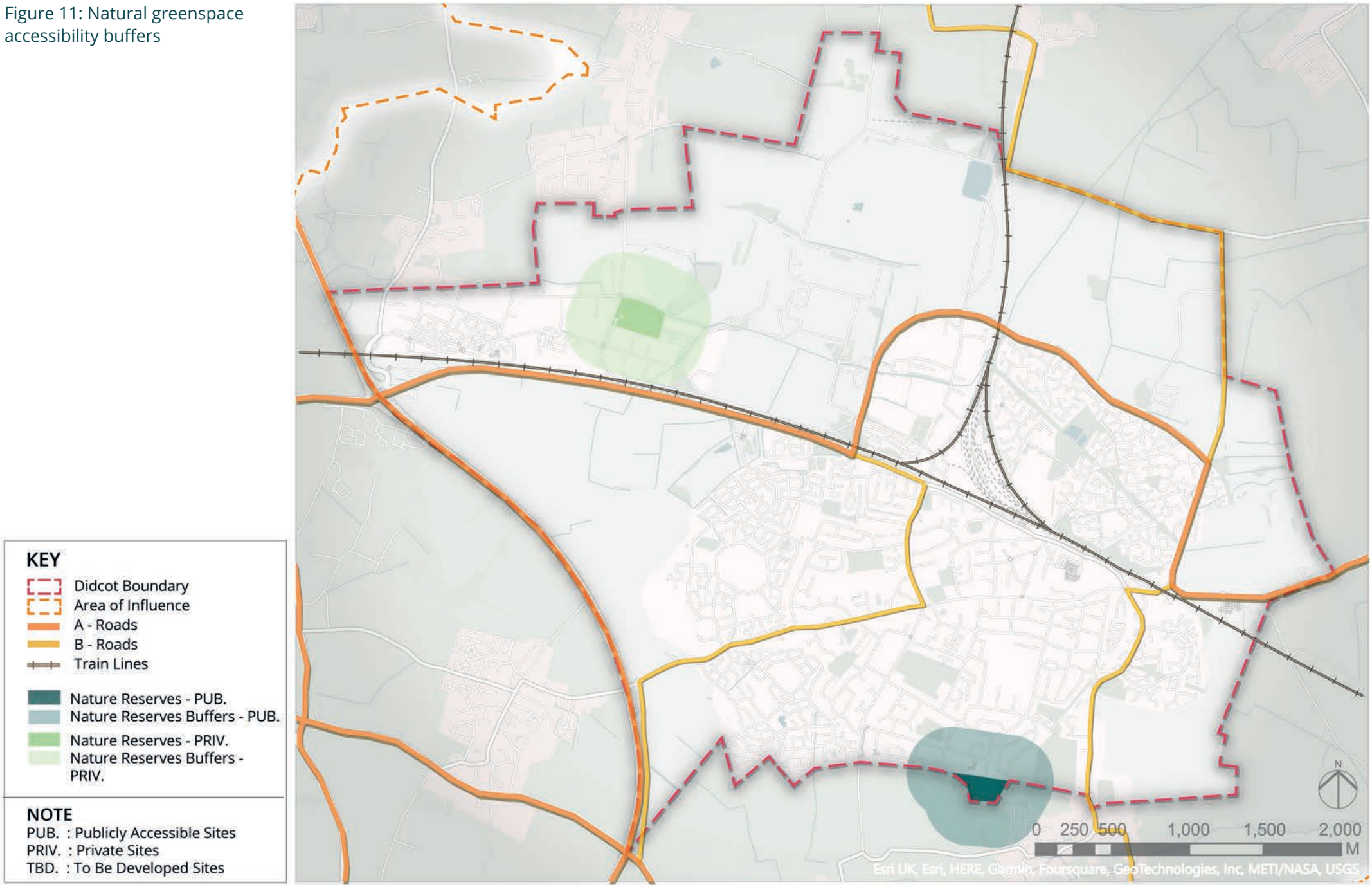


Figure 12: Allotment accessibility buffers

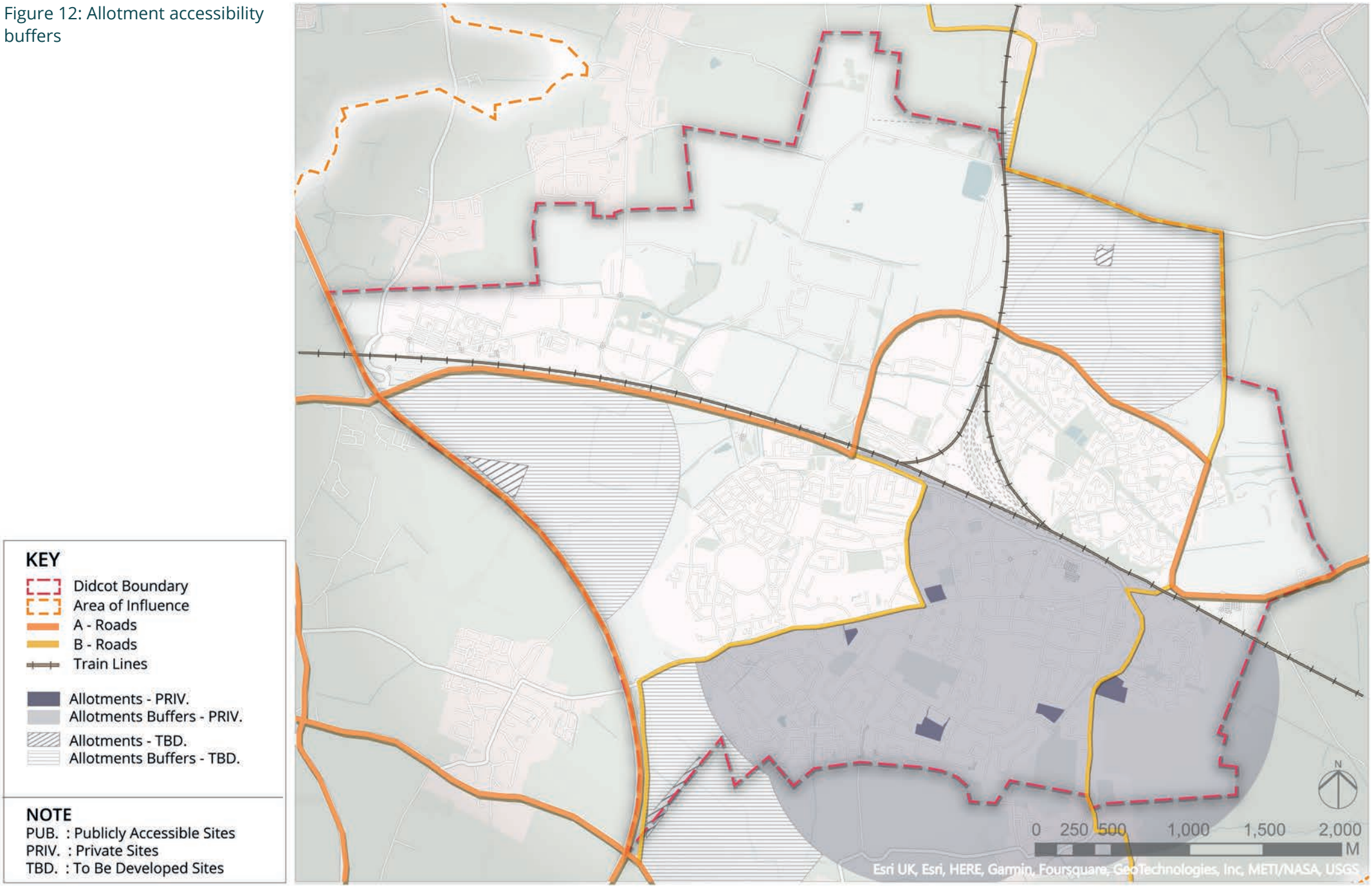
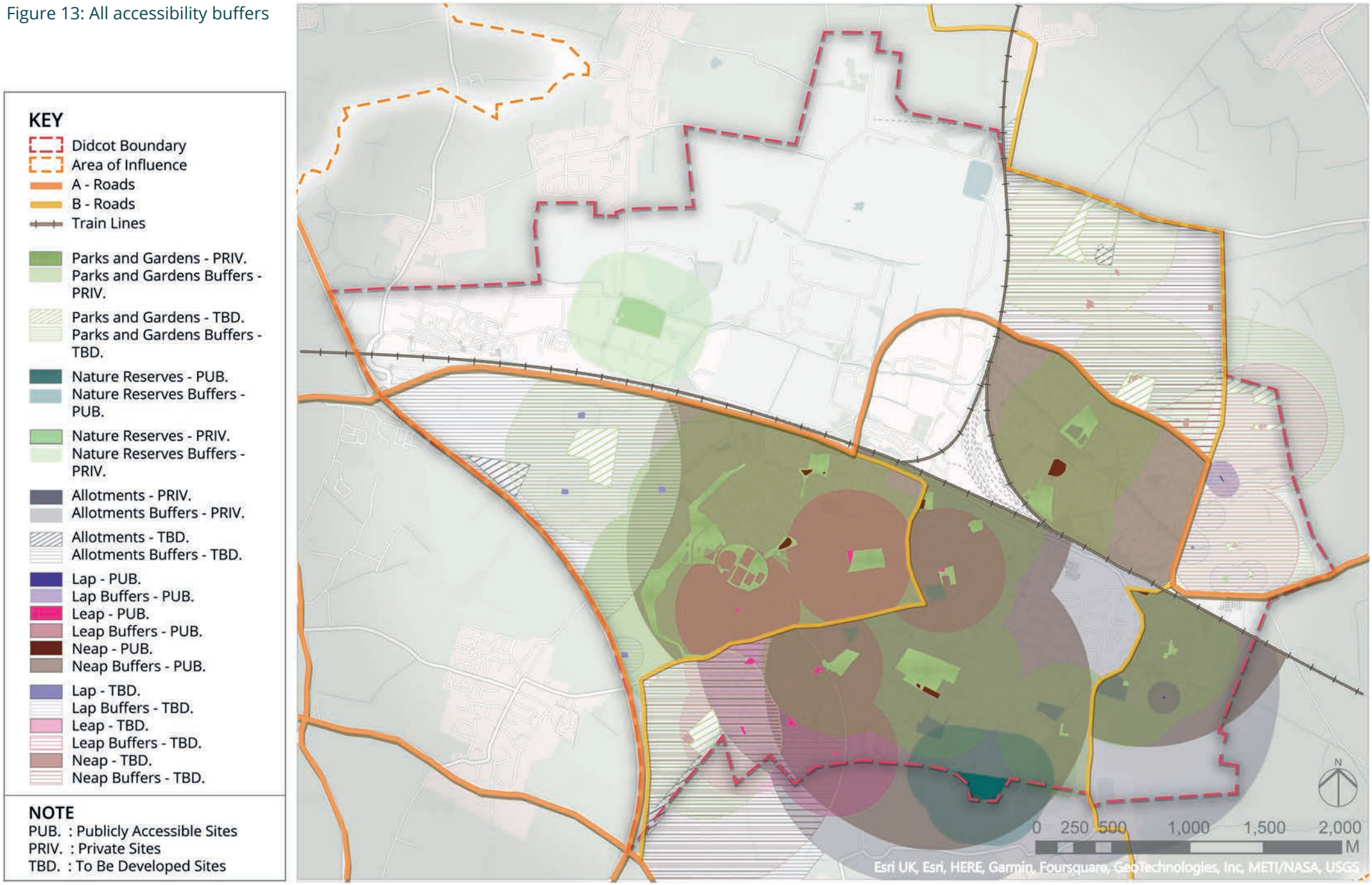


Figure 13: All accessibility buffers



Links and corridors

The Didcot Garden Town masterplan sets out an ambitious programme for the implementation of an enhanced network of walking and cycling connectivity across Didcot. This focuses on three key interventions:

- The implementation of the Garden Line connecting Culham Science Park to Harwell Campus
- A "gateway spine" connecting central Didcot with Steventon along the A4130/Station Road
- A "cultural spine" connecting Harwell with central Didcot along Broadway/A4493
- Long distance routes to Abingdon, Wittenham Clumps and North Moreton

Although some of this infrastructure is in place, significant gaps in provision and a lack of good quality provision (i.e. safe, attractive, well-signed and well-constructed) still present as issues to be addressed.

Biodiversity connectivity has only been established in a limited number of locations (e.g. on the pylon line running north-west to south-east across Ladygrove, along the main railway lines, and in the form of retained hedgerows).

Parks and greenspaces are commonly maintained as short grass areas with low biodiversity value and limited multi-functionality. Woodlands are retained only as isolated, unconnected blocks. Street trees are notably absent from much of Didcot and road verges are generally maintained as short grass, limiting their biodiversity value.

There is potential across the Town to enhance all aspects of green infrastructure connectivity through capital works interventions and through the adaptation of current management and maintenance regimes.

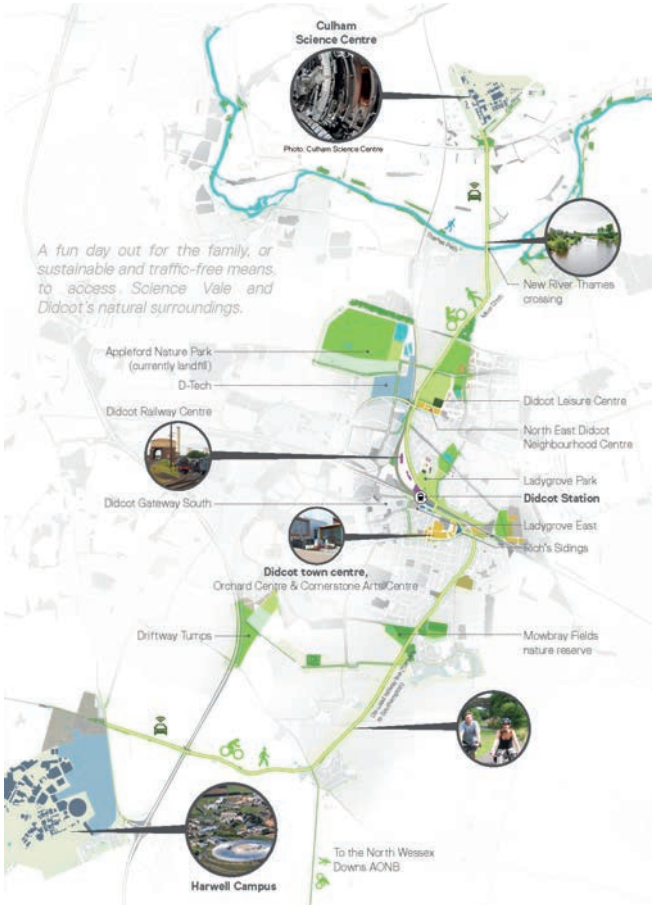


Figure 14: Didcot Masterplan's proposed Garden Line

3.6 Engagement

In the process of developing this Strategy, the project team arranged a series of structured interviews with key stakeholders as follows in table 4. Summaries of these interviews are included as Appendix 2.

Stakeholder Groups
Active Communities Team
Didcot Town Clerk (various Didcot Town Council staff)
Climate and Biodiversity Team
Strategic Property Team

Table 4: Key Stakeholders

3.7 Conclusion

Didcot has a significant range of green infrastructure provision but also has significant deficits in provision in some areas of the Town. Connectivity between green infrastructure assets providing active travel capacity and biodiversity resilience is relatively poorly expressed.

The Didcot Garden Town programme includes an ambitious programme of green infrastructure enhancement to enhance the range of ecosystem service flows from green infrastructure. These will address the key objectives of the "super green town" proposal – enhanced health outcomes, enhanced climate change resilience, enhanced biodiversity resilience and an enhanced sense of place for the Town as a whole and for its existing and emerging local areas. Figure 14 is indicative and subject to amendment.

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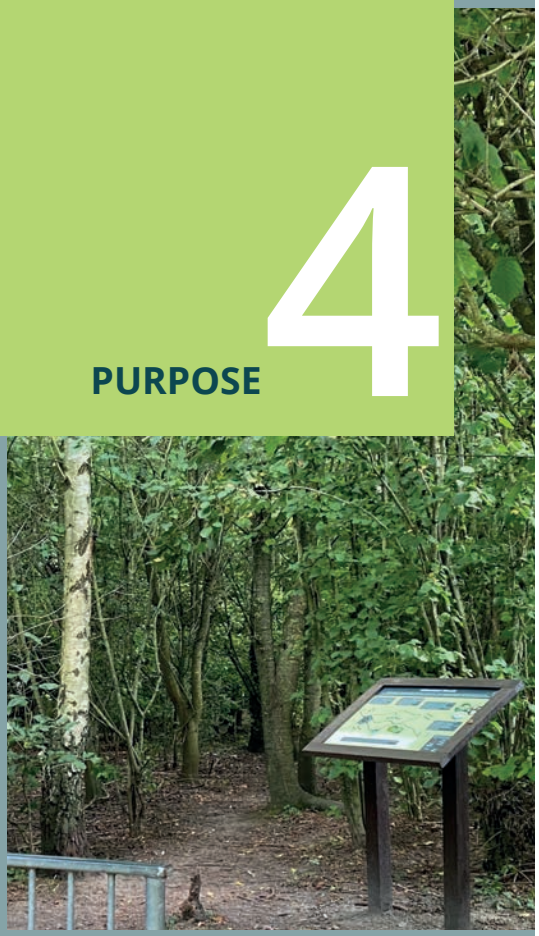
4

PURPOSE



4.0 Purpose

4.1 Introduction

Communities have always valued parks as the most accessible form of green infrastructure, but there is now a significant volume of evidence that suggests that greenspaces can contribute significantly to quality of urban and peri-urban life in multiple ways.

Didcot's green infrastructure provides a range of benefits to people living and working in Didcot or visiting the Town. These can be broadly characterised as the ecosystem service flows that are generated by Didcot's natural capital. One of the functions of the Green Infrastructure Strategy will be to ensure that these service flows will continue to be protected, improved and increased. This will be achieved by:

- Enhancing the condition and multi-functionality of existing green infrastructure assets
- Generating additional ecosystem service flows by embedding new accessible greenspaces within new development
- Enhancing existing and creating new links between greenspaces
- Maximising opportunities to secure ecosystem service flows through engineered green infrastructure (e.g. swales, rain gardens, green roofs and green walls)

This section of the Strategy describes the ecosystem service flows that enhanced green infrastructure can deliver for Didcot. Section 5 of the Strategy describes how these outcomes will be delivered through specific interventions across Didcot.

4.2 Enhancing existing assets and connectivity

Section 3.5.2.2 described the distribution of Didcot's different green infrastructure typologies and identified areas of deficiency in provision.

Green infrastructure assets should no longer be seen as isolated entities but as part of an integrated and mixed-use economic, social, and environmental structure that binds places together, making individual places distinctive and contributing to the quality of life for communities. As a consequence, the Strategy identifies existing green infrastructure provision across Didcot and proposes measures to forge stronger connections between assets. The benefits of this approach are:

> The development of a consistent network of green infrastructure across the whole town that promotes the "super green town" ambition as a place making tool.

Most people strongly identify with their local greenspace and consider it an essential part of their neighbourhood. Substantial research has identified the capacity of greenspace to instil a sense of place and to increase residents' affinity

with their neighbourhood, build social cohesion and promote sustainable communities. Where spatial considerations do not allow for the creation of new publicly accessible greenspace, enhanced green infrastructure connectivity between greenspaces can provide additional capacity.

> The use of this network as an active travel option (both locally and across the whole town), providing a better balance with vehicles and providing health benefits from walking and cycling

An efficient active travel network can reduce car dominance, creating safer, calmer streets and providing a means for people to easily incorporate exercise into their daily routines. A well-designed active travel network can allow people to easily access and spend time in natural greenspaces. The health and wellbeing benefits of access to natural greenspaces are discussed in section 4.4.

> Developing the functionality of the green network to support enhanced biodiversity and climate change resilience

Green infrastructure interventions that address climate change and biodiversity resilience are described in detail in section 4.5.

These ambitions are already partially described in the Garden Town Masterplan's green route proposals but the implementation of

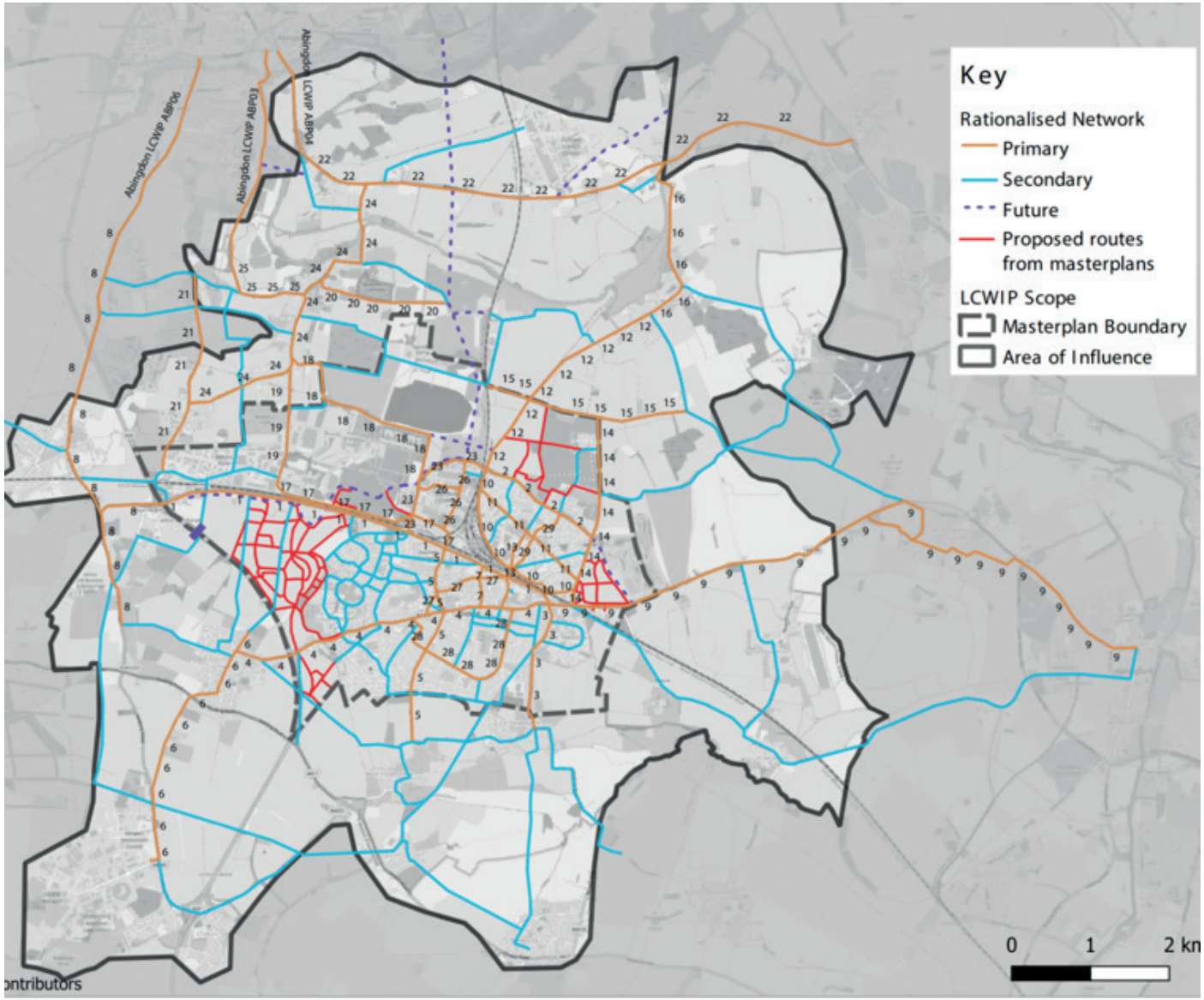


Figure 15: DGT Proposed cycling network from draft LWCIP

these ambitions is yet to be comprehensively fulfilled. Proposals that respond to the need for biodiversity and climate change resilience are largely absent.

4.2.1 Inform prioritisation and use of limited resources

Prioritising greenspaces for improvement (and finding locations for new greenspaces) is much more than a simple "tick box" exercise. Once areas of deficit are defined by the Strategy, planning can begin to ascertain which areas are most likely to benefit from the varying types of green infrastructure that are at their disposal. Some examples include:

- Finding opportunities for greenways that connect communities and work centres as well as providing recreation, active travel, and play benefits to promote a green grid approach
- Finding opportunities for smaller interventions, especially in urban areas, for stepping stone ecological benefit as well as strategic play and amenity features (where feasible): green walls and roofs, pocket parks, street trees and SuDS features can all multitask in denser environments

4.3 Place making and culture

Green infrastructure is a significant inflection point within a community with regard to creating a sense of place. Parks in UK towns and cities are the most visited typology of the natural environment with an estimated 827 million visits a year.[1] This is followed by 456 million visits taken to paths, cycleways, and bridleways, and 417 million visits to woodlands and forests.[2] In July 2021, "65% of adults in England had visited a green and natural space in the last 14 days, in line with June (66%)."[3]

Numerous studies have identified the capacity of greenspace to reinforce a sense of community and allowing a variety of people to interact in a natural environment. A greenspace that welcomes a diversity of people will serve to connect the community and instil strong feelings of pride in residents. These feelings are particularly strongly expressed when greenspaces have a direct heritage value or contain cultural assets or activities of significance that resonate with their community.

Greenspaces are by their very nature diverse, democratic spaces, typically encouraging people of all ages and from many cultural, ethnic and social backgrounds to meet and interact. This is particularly the case where communities participate in the planning and management of their public spaces or where they contribute to cultural and sporting activities. In particular, residents in urban areas with mobility difficulties such as the elderly, people with physical, intellectual disabilities or mental illness, children and mothers find green public spaces an essential element of their life quality.[4]

The ethnic diversity of Didcot is lower than the England average,[5] however an efficient and sensitive response to diversity is to create a culturally rich and inclusive environment in all the greenspaces within Didcot. Public greenspace should be welcoming for everyone, and people should never be made to feel that they cannot identify with their local greenspace as a personal space. Offering culturally-related activities is a way to foster a better understanding of the values and benefits other ethnic groups can offer, as well.

4.4 Health and wellbeing

Access to high quality greenspace provides multiple social, economic, and environmental benefits that overall enhance quality of life.[6] Public Health England's review, Improving Access to Greenspace, collates current and robust data on the physical and mental health benefits of greenspaces and shares that greenspaces promote positive health and wellbeing outcomes through:[7]

- Increased physical and recreational activities
- Connection to nature
- Community and social cohesion
- Developing children's skills and capabilities
- Mediating potential harm through reducing air and noise pollution, reducing the urban heat island effect, and preventing flooding

The financial value of these healthful outcomes can be quantified. The City of Edinburgh Council undertook detailed analysis on the return of investment its parks provide and found that for every £1 invested in parks, approximately £12 of social, economic and environmental benefits are delivered.[8] In Sheffield, the valuation is even more pronounced with every £1 spent on parks services generating £36 of benefits.[9] The link between health and wellbeing and access to natural greenspaces is now very apparent. Indeed, the Chief Executive at the Environment Agency, Sir James Bevan, recently shared evidence that "the NHS could save an estimated £2.1 billion every year in treatment costs if everyone in England had access to good quality green space" and that "investing in a healthy environment is about the smartest thing we can do."[10]

As an example, having just 10 more trees in a city block improves people's health perception in ways comparable to an increase in annual income of £8,000 or being 7 years younger.[11] Two hours a week spent recreationally in natural environments significantly increases the likelihood of people feeling a heightened sense of well-being or good health.[12] Research has shown that older adults living in areas with more greenspace have lower rates of hospitalisation for Alzheimer's and Parkinson's disease.[13]

During the Covid-19 pandemic, public greenspaces were crucial for maintaining physical and mental health during lockdowns. Sustained and elevated use of parks was observed across the entire pandemic,[14] with access to greenspaces being associated with greater self-reported feelings of wellbeing.[15] Those living more than five minutes away from public green spaces had lower levels of subjective wellbeing, while those with access to private gardens had higher levels of wellbeing than those without.[16] This highlights the importance of green spaces as an essential health resource, particularly in times of crisis.

In common with most towns and cities in the UK, Didcot has health inequalities. These are often linked to poor life chances in general as typified by the Indices of Multiple Deprivation last published by the Office for National Statistics in 2019 (see Figure 16). Research has established that there is a broad correlation between poor greenspace provision or poor greenspace quality and health inequality. As described in Section 3.5.1.3 Didcot has pockets of relative deprivation in the south-east segment of the Town, including high incidences of disease groups identified with deprivation and poor life changes (cardio-vascular disease, Type II diabetes, obesity, clinical depression and alcohol-related diseases (see Figure 16).

As Section 3.5.1.3 identifies, this area of Didcot is under-provided with greenspace and greenspace quality is lower in this segment. The enhancement of the quality of greenspaces in this segment and the creation of additional capacity

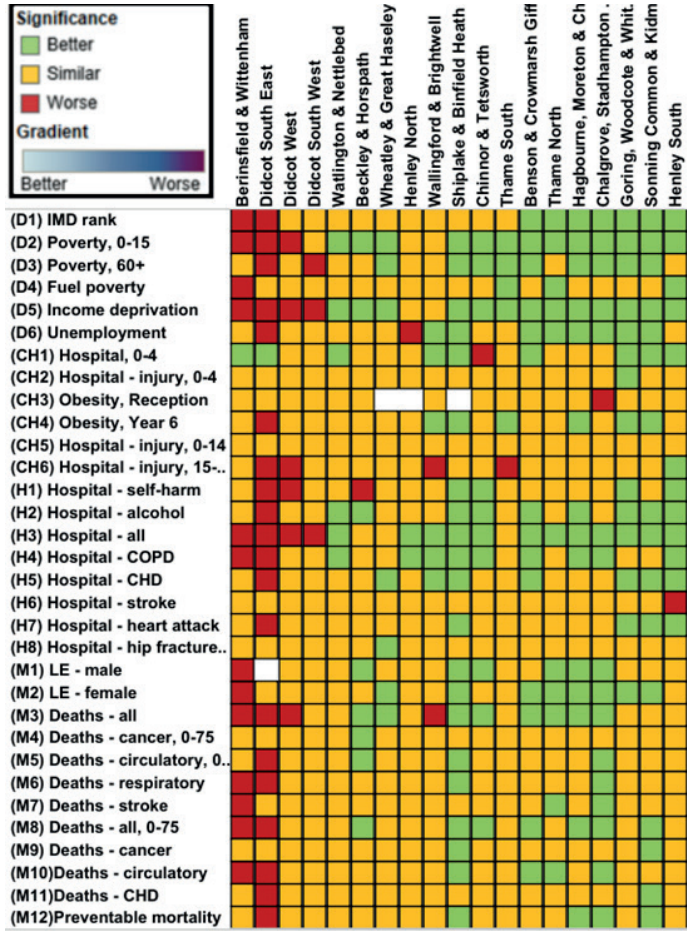


Figure 16: MSOAs in South Oxfordshire against key indicators of inequality

4.4.1 Making space for women and girls

through "green grid" connections between spaces could (in tandem with other initiatives such as making space for women and girls) positively influence health outcomes in this area of the Town.

Spending time in greenspaces is very good for the health, mental wellbeing, and cognitive development of children and teenagers. Some of the studied benefits to children and teenagers spending time in greenspaces include improved symptoms of ADHD, moderated stress, and supportive social groups.[17] However, the rate in girls' use of greenspace drops off as they become teenagers and reduces further as they move into adulthood.[18] Public greenspaces can be intimidating or uninteresting places for teenage girls, with many feeling like there is nothing there for them. Consequently, use of natural greenspaces can be self-limited, potentially damaging their health and wellbeing. The use of natural greenspace can help teenagers to form supportive social groups,[19] which may be pertinent to girls, as they are prone to suffering greater levels of social isolation than boys.[20]

While discrimination and harassment can be "designed out" to an extent, it is obvious that altering the layout of a park is not enough to tackle the roots of discrimination. Systemic intervention across our society is needed to address these issues. Involving young men and boys in this process can be achieved through education, to try and "unpick the stereotypes that pressure and constrain all young people."[21]

The 2023 research draft by Make Space for Girls gathers the most current research and case studies on teenage girls' use of public greenspace.[22] The findings shared are sensitive, nuanced, and point to the wide neglect in provision for teenage girls as well as to innovative and refreshing ideas for greater inclusion. It is out of the scope of this Strategy to discuss the findings in depth. However, a summary of some popular examples of favoured facilities are outlined towards the end of this section.

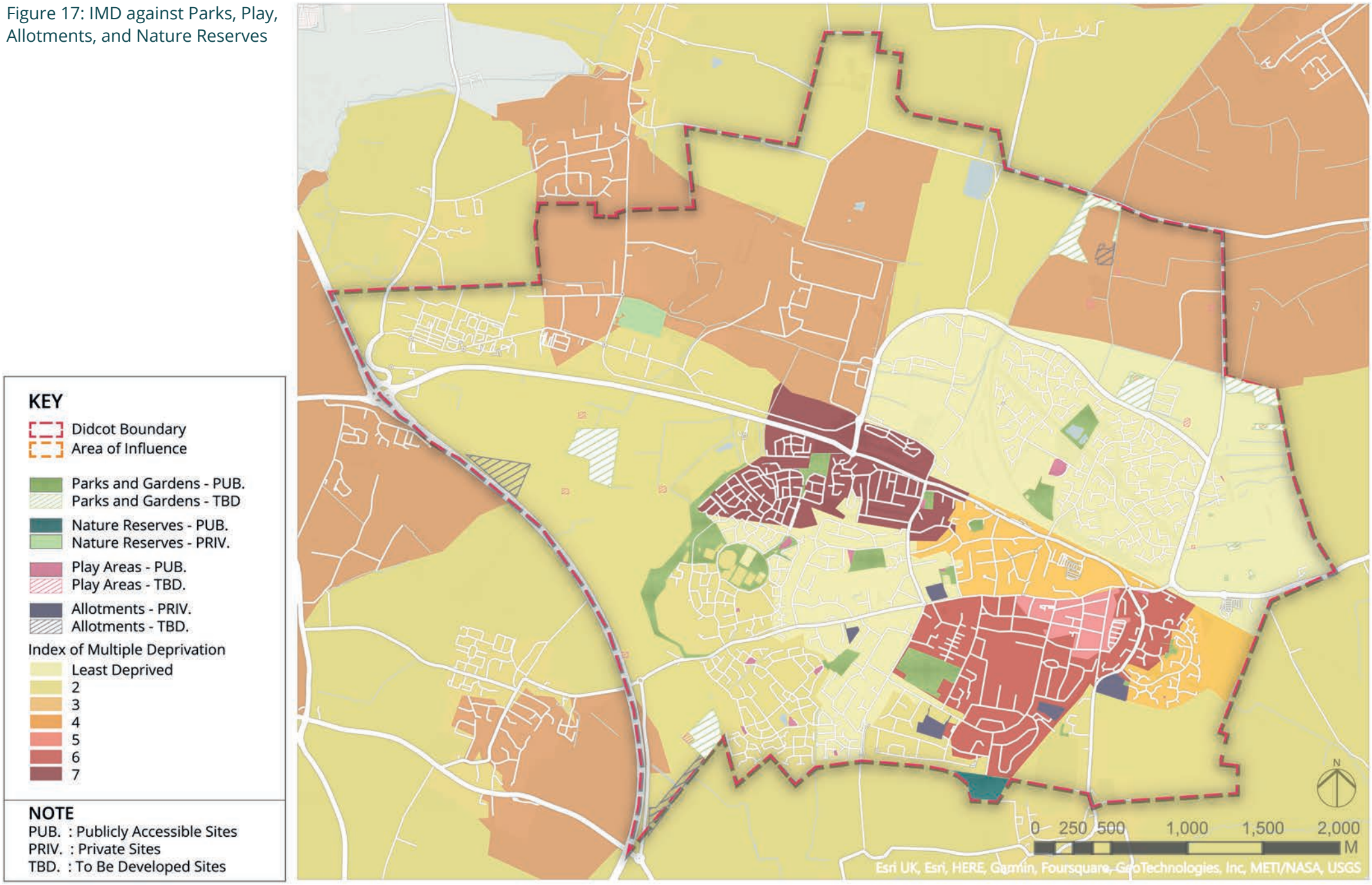
The "Safer Parks," report produced by Keep Britain Tidy, Make Space for Girls, the University of Leeds, and West Yorkshire Combined Authority report outlines design guidance and management recommendations to help make women and girls feel safer in parks.[23] The overall objectives of the guidance can be summarised as follows:

- Encourage the busyness and activation of the park
- Enhance visibility and prospect
- Design clearly visible and accessible escape routes and ensure regular breaks in edges, fences and walls
- Ensure lighting is human scaled, low and even – particularly along key routes
- Provide clear signage, path hierarchy, and wayfinding
- Install specific facilities aimed at women and girls
- Maintain park tidiness and repair vandalism
- Ensure access to the park is via safe and well used routes
- Invite co-design and intersectional engagement

Many of the impediments to the creation of safe spaces for women and girls pertain across Didcot. Spaces and connecting routes are in many places poorly lit, poorly signed, do not offer obvious means of escape and do not provide facilities that respond directly to the social needs and aspirations of 50% of the community. Section 5 of this Strategy describes how these issues might be addressed.

The Make Space for Girls campaign comments: "Britain has at least 1,600 skate parks and countless MUGAs but – as far as we know – not one outdoor facility used predominantly by girls or designed with them in mind."[24] The Campaign collates examples of facilities that teenage girls want from successful case studies from other countries and research involving engagement with girls.

Figure 17: IMD against Parks, Play, Allotments, and Nature Reserves



The Frizon in Umeå, Sweden

One example is the Frizon in Umeå, Sweden ("frizone" translates as "free zone"). The Frizon is a sculpture-like social seating installation designed in collaboration with local teenage girls.[25] The Frizon provides seats ergonomically right for teenage girls along with shelter and lighting.

Particular features that have proved to be popular and effective are:[26]

- Social seating and shelter
- Swings
- Outdoor gyms, particularly with equipment not weighted for adult men
- More smaller areas
- Walking loops, particularly around the perimeter of the park
- Toilets – this is important as 67% of girls surveyed in Yorkshire said that a lack of toilets was a barrier to them using the park at all[27]

The above is a brief outline of the small yet hopefully growing body of research and advice concerning the difficulties, disappointments, and danger teenage girls experience in parks. The Make Space for Girls research draft and the "Safer Parks" report are two helpful documents that give guidance and recommendations on how to make public natural greenspaces more welcoming, fun, and safe for teenage girls. As park and public spaces are crucial in forging a sense of belonging and community,[28] the more women and girls use them the more they are involved in public life.

4.5 Climate change and biodiversity

4.5.1 Climate change

Didcot's main areas of climate-related vulnerability include:

- Increased flooding
- Higher temperatures associated with the urban heat island effect
- Increased risk of drought

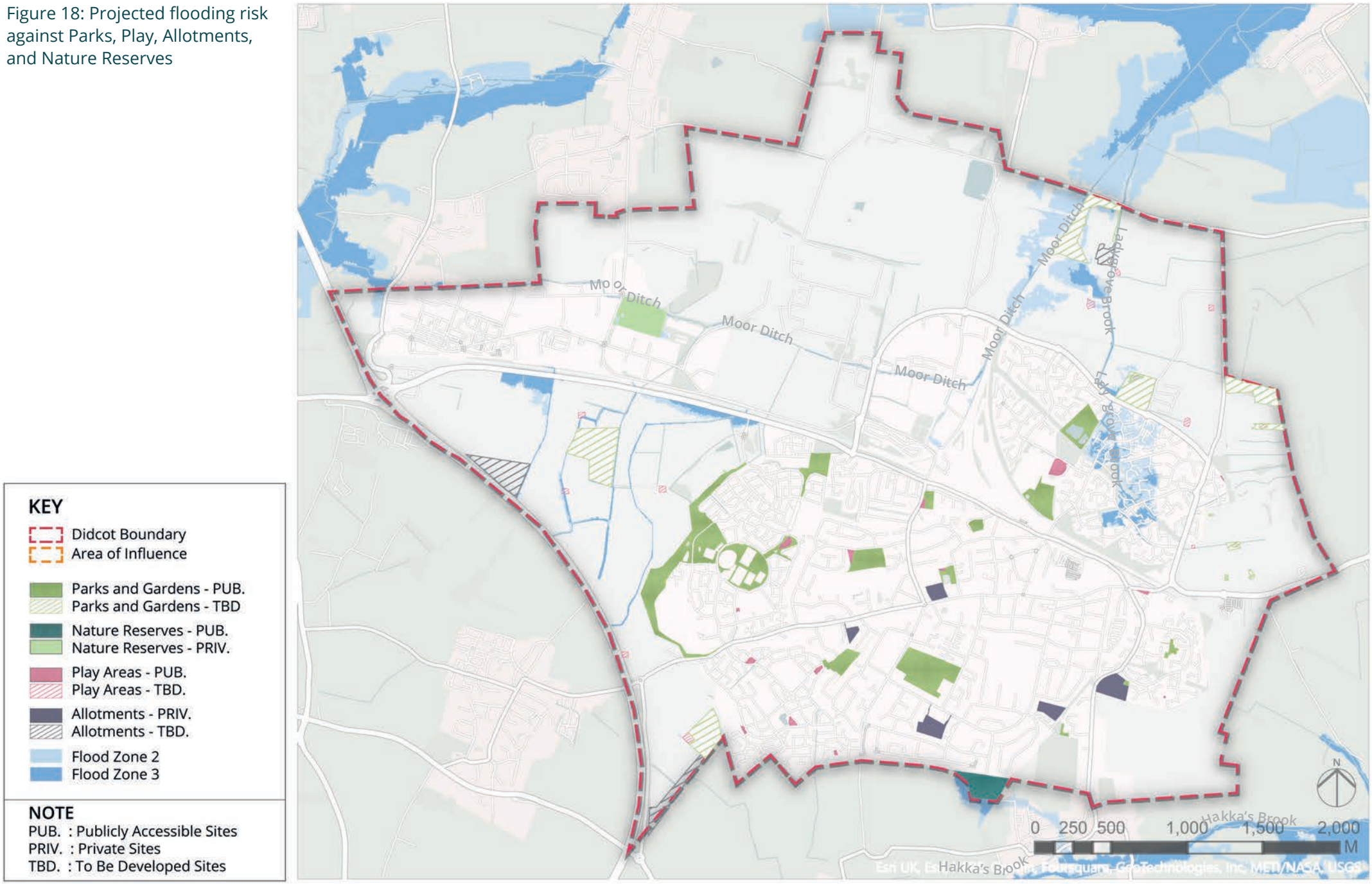
The following section will outline what role natural greenspaces can play in addressing these challenges.

Flooding

The latest Strategic Flood Risk Assessment encompassing Didcot recommends that:[29]

- Development is strategically placed away from Flood Zones 2 and 3, opting for Flood Zone 1 when feasible
- Development should steer clear of small watercourses. However, if development is unavoidable, conduct a site-specific flood risk assessment to understand the potential flood risk level
- Development must avoid disrupting current surface water flood risk or flow paths

Figure 18: Projected flooding risk against Parks, Play, Allotments, and Nature Reserves



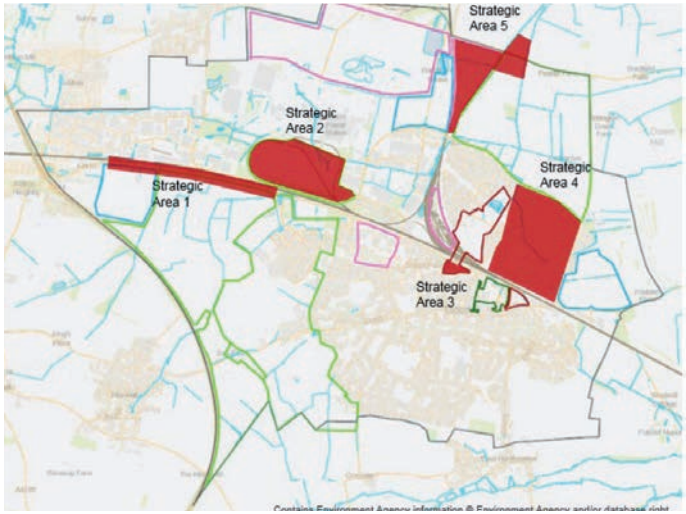


Figure 19: Main strategic flood areas in Didcot

There are three main watercourses in Didcot: Moor Ditch, Ladygrove Brook, and Hakka's Brook. Ladygrove Estate is the site of a historic marsh associated with the River Thames floodplain.[30] However, the Romans drained much of north Didcot by canalising Moor Ditch.[31] Figure 18 shows Didcot's green infrastructure against flood zones 2 and 3.

Since 1990, the main areas to experience flooding in Didcot are the industrial estate to the north-west of the Town centre and in the West Hagbourne vicinity to the south of Didcot.[32] Flooding in both areas is believed to stem from potential blocked culverts and changing farming practices.[33] The Ladygrove Estate and Didcot Parkway railway station are also areas that have experienced flooding in recent years. Figure 19 shows the five key strategic areas where improvements to drainage and flow of water have been identified as a priority:[34]

Strategic flood risk management proposals for Didcot can be summarised as follows:[35]

- Strategic area 1: new development will maintain and enhance green corridors, particularly along existing watercourses. SuDs features in this area tie in with landscape proposals along the gateway spine.
- Strategic area 2: comprises "areas designated as green infrastructure corridors that will eventually discharge into the River Thames. Restoring the rivers to their natural state will provide an important link to the River Thames."[36]
- Strategic area 3: a lack of available space may remain a constraint, new development will provide open green spaces where SuDS will be accommodated.
- Strategic area 4: Options for improving flood risk within the Ladygrove estate area are not shared, but the Plan shares concern about downstream effects.
- Strategic area 5: The route of Moor Ditch and Ladygrove Brook through this area has been identified as a green infrastructure corridor which could potentially connect to the River Thames. Development in the area must ensure these watercourses are not disrupted.

Greenspaces play a vital role in absorbing localised flooding during rain events. Even the smallest greenspaces within urban areas can offer storage of rainwater and prevent or reduce burden on streams and watercourses. SuDS, rain gardens, and other flood mitigation measures can help with cleaning and filtering rainwater as well as mitigating excess water during storm events.

Climate change and global warming trends threaten an ever-increasing risk of flooding. Higher atmospheric temperatures introduce volatility into weather systems, increasing the risk of sudden and extreme precipitation episodes. Dense urban and built-up environments are not always able to cope with sudden storm surges, which can lead to economically and socially damaging flood episodes. Where river valleys and parks intersect, there is an opportunity to address the risk of flooding by providing attenuation and water storage capacity. Flood plains can be preserved and regenerated as natural systems to absorb rainwater. Naturalising channelled water courses can also reduce pressure on engineered urban drainage systems.

Episodes of extreme precipitation bring an increased risk of flooding and the capacity of engineered drainage systems to cope with surcharging are limited. Permeable soil systems and vegetation are capable of absorbing

significant quantities of precipitation. Hard landscaped urban areas have a dramatically higher run off rate than ground surfaces consisting of trees and grass. Trees also provide natural filtration and prevent soil erosion, improving water quality.

Within Didcot both streetscape (through rain gardens and swales) and greenspace (through swales and attenuation ponds) provide opportunities for small scale attenuation that cumulatively can have a significant impact of flood risk. This will be particularly significant in areas of significant flood risk (central Ladygrove, north Didcot, east Hagbourne and on the west gateway. Within Ladygrove, the provision of attenuation within the central greenspace and pylon line spine and the installation of rain gardens on main roads (e.g. on Mersey Way) will reduce pressure on surface water drainage systems. The creation of a new accessible natural greenspace across the north east of Didcot could act as a drainage basin for surface water from the Didcot A and adjoining development sites while the formalisation of water meadows to the west of Moor Brook could reduce flood risk upstream. To the south of Didcot, the installation of swales along the southern edge of Mowbray Nature Reserve could enhance biodiversity and absorb surface water in the Hakka's Brook system.

Figure 20: Section illustrating SUDS streetscape design

Temperature

The heat island effect and urban warming are caused in part by elevated gaseous pollution and by the absorption of heat by the built environment. Greenspace has been demonstrated to have a cooling effect on urban temperatures. Greenspaces generally, and particularly areas with trees, have a significant effect on moderating temperatures resulting from heat island effect. Recent research analysing 293 cities from across Europe found trees specifically have a considerable cooling effect on surface temperature, by up to 12°C in some areas.[37] Other research shows the cooling effect of trees and greenspaces in urban areas can lower night-time temperatures by up to 5°C.[38] Previous research has shown that this cooling

Chestnut pale fence to protect naturalised planting

effect can be felt up to 100m from the site.[39] Even small areas of tree planting (60 × 40 m) can produce this cooling effect.[40] The removal of hard surfaces and their substitution with green surfaces can significantly lower average surface temperatures.

The effects of global warming on climate conditions have been well documented and occurrences of extreme weather events are modelled as significant outcomes.

As the image on the right demonstrates, Didcot is relatively poorly provided with street trees that can provide shade and remove pollution from the air. Many of Didcot's streets are sufficiently dimensioned to support new tree planting that would directly affect the urban heat island effect and reduce pollution levels that contribute to higher temperatures.

Didcot's woodland areas are largely isolated and there are opportunities to effect better connectivity between woodland blocks to enhance their cooling effect (and to support better biodiversity connectivity) in the western and south-western quadrant of the Town. The creation of a new accessible natural greenspace along the north-eastern boundary of Didcot would also offer the opportunity for extensive woodland creation.

4.5.2 Biodiversity

Across the whole of the UK, evidence points to a severe decline in biodiversity over a protracted period. With just 53% of its biodiversity intact, the UK falls behind countries including the USA and China and is in the bottom 10% globally in respect of retained biodiversity.[41] Worldwide, global biodiversity intactness was at 75% in 2020, which is considerably less than the 90% needed to avoid dangerous tipping points and maintain vital ecological functions like pollination and nutrient cycling that are essential for human survival.[42]

Urban environments can support high levels of biodiversity and offer opportunities for some species. Low and intermediate levels of ecosystem service delivery can increase species richness for some species as a consequence of the mosaic of habitats available to them. As an example, native bee species in urban landscapes can be found in an abundance and diversity that is absent in nearby rural lands due to pesticide use and other contemporary farming practices.[43]

Aside from the Town's two nature reserves, designed greenspaces in Didcot can be characterised as being dominated by ecologically poor short grass areas. There are abundant opportunities across Didcot to significantly enhance ecological diversity and provide refuge to a large number of species. Opportunities can be sought to diversify Didcot's greenspaces to deliver enhanced biodiversity resilience

Didcot streets are notably lacking in street trees

through the adoption of different mowing regimes, allowing the development of scrub and through additional tree planting, while maintaining a balance between current formal and informal amenity uses that parks support and maintenance costs.

The development of habitats and biodiversity potential in urban spaces can be supported by creating green corridors that offer animals and plants more opportunities to migrate and engage in genetic exchange. There are ample opportunities to connect formally designed greenspaces through wildlife corridors along streets that are currently frequently lined with short grass verges.

As outlined throughout the previous pages there are opportunities to develop enhanced woodland connectivity across areas of Didcot that will support enhanced biodiversity resilience. These initiatives would be particularly pertinent to the interface between urban, peri-urban and adjacent rural areas that can support a more diverse range of habitats.

As described in Section 3, the Environment Act of 2021 has enshrined the concept of net gains for biodiversity through development. This reflects a wider recognition that strategies for green infrastructure need to provide maximum benefit for multiple aims: for biodiversity, for wider ecosystem service delivery, and for the health and wellbeing needs of people who use these greenspaces. Proposed Garden Town developments will have to demonstrate Biodiversity Net Gain. In most cases, it is assumed that this will be achieved on an "on site" basis as opposed to off-site provision. It is important that Biodiversity Net Gain is delivered strategically and delivers a connected network of habitats rather than isolated pockets of nature.

4.6 Conclusion

Didcot's green infrastructure assets deliver a range of economic, social and environmental benefits that can be described as ecosystem services. The Garden Town masterplan offers significant opportunities to protect and enhance the range of ecosystem service flows provided by Didcot's green infrastructure and natural capital.

The focus of the Strategy is to devise proposals for green infrastructure enhancement that will deliver an enhanced range of outcomes that conform to the green infrastructure principles set out in Section 3 under the following headings:

- Health and wellbeing
- Amenity and recreation
- Climate change resilience
- Biodiversity resilience

In later sections of the Strategy, we will discuss the specific interventions that are proposed for the different segments of Didcot. This section will include project options for the implementation of these proposals in the short, medium and long term.

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PROPOSALS & RECOMMENDATIONS

5

5.0 Proposals and Recommendations

5.1 Introduction

Section 3 of this Strategy describes the approach adopted to analysing the provision of green infrastructure across Didcot and presents information on areas where there is a deficiency of provision both spatially (i.e. across different area of Didcot) and thematically (i.e. identifying green infrastructure components that are under-provided). Section 4 analyses the different social, environmental and economic benefits accruing from green infrastructure and identifies area of Didcot where a deficiency of provision could be addressed by increasing the quantity and quality of provision.

This Section analyses current green infrastructure provision across Didcot and identifies areas where this enhanced provision could be delivered both spatially and thematically.

For the purpose of this report, Didcot has been divided into five distinct sections. The London to Bristol main line neatly divides the northern and southern areas of the Town and the Didcot to Oxford line sub-divides this northern area into two distinct and contrasting segments – the largely residential Ladygrove area and the largely commercial area of Didcot A and B and Milton Park. The southern segment does not lend itself to a straightforward sub-division but the urban expansion areas of Great Western Park and Valley Park can to an extent be distinguished from existing residential areas to the east. The central commercial area of Didcot around the Orchard Centre and on the west side of Station Road have a town centre urban grain that can is easily distinguishable from adjoining residential areas. Although this sub-division of Didcot is logical, a principle underpinning good quality green infrastructure is continuity and connectivity. Didcot's significant railway infrastructure (and the limited number of crossing points of this infrastructure) compromises the connectivity of the Town as a whole and the proposals for each segment seek to address this by identifying key points of connectivity between different parts of the Town and how green infrastructure can act as a unifying element supporting a unique sense of place across Didcot.

5.2 Funding

Funding for green infrastructure projects can be characterised under a number of separate headings.

i. Central government funding initiatives
ii. Funding related to planning and development
iii. Prudential borrowing and commercial borrowing
iv. Local taxes and funding models
v. Independent trusts and foundations
vi. Enterprise Zone retained business rates

5.2.1 Central government funding

Central government has launched a number of funding initiatives during the lifetime of the current Parliament and some of these funds have been used to deliver green infrastructure enhancements, including:

- The Levelling Up Fund Rounds 1-3
- The UK Shared Prosperity Fund
- Trees, woodlands and forestry – Woodland Creation Planning Grant
- Woodland Creation Planning Grant
- England Woodland Creation Offer (EWCO)
- Woodland Partnership (Forestry England)
- Capital Grants: Countryside Stewardship
- Trees, woodlands and forestry – Local Authority Treescapes Fund

Future government funding for green infrastructure will be determined by the programme of the new government as determined by the general election in 2024.

5.2.2 Funding related to planning and development

Section 106 Agreements (S106) are legal agreements made between developers and South Oxfordshire and Vale of White Horse District Councils. The obligations within a S106 may be financial or non-financial and are used alongside Community Infrastructure Levy (CIL) to ensure infrastructure is provided. The use of S106 agreements may include securing financial contributions for social housing and infrastructure or securing non-financial infrastructure such as open spaces and play areas, which applies to new development proposals.

For Developments that are not CIL liable, financial contributions are secured through S106. Major developments that are CIL liable still have a S106 agreement which sets out the non-financial obligations for the site and may still secure certain financial contributions through S106.

CIL has not replaced S106 planning obligations and the councils' Infrastructure Delivery Plans (IDPs) in identifying green infrastructure gaps mainly refers to S106 funding. The infrastructure portion of CIL receipts is administered by the councils in line with the CIL spending strategy, which in turn refers to the IDPs.

The September 2020 IDP infrastructure schedule for Didcot identifies S106 developer contributions for Didcot North East green infrastructure corridors and a nature park. Developer contributions, which may be non-financial, for Ladygrove East include a network of public greenspace and integrated green infrastructure. Proposed interventions also include Didcot Town and Garden Line Cycle improvements. The Garden Line was an aspiration in the 2017 Didcot Garden Town Delivery Plan.

The IDP infrastructure schedule for land adjacent to Culham Science Centre, in the Didcot Garden Town Area of Influence, includes developer contributions for open space. The councils are preparing a new Joint Local Plan and will review the Infrastructure Delivery Plans to consider if they should be updated to reflect new evidence and standards

Should a possible green infrastructure scheme be identified, the Councils' Infrastructure Obligations Team are able to review the funding available against the project details and advise if there are any S106 and CIL contributions that may be able to support its delivery or identify where non-financial contributions may include delivery of onsite green infrastructure.

5.2.3 Prudential borrowing and commercial borrowing

While changes in the 2003 Local Government Act and 2003 Capital Finance Regulations that introduced the Prudential Code freed local government from centrally government-imposed borrowing controls, there have been a series of well-documented financial issues at a number of local authorities, and it is unlikely that South Oxfordshire and Vale of White Horse would seek to borrow funds to provide green infrastructure improvements.

5.2.4 Local taxes and funding models

Local taxes can be levied to fund delivery and management of greenspace in expectation of increasing visitor and customer numbers and their impact on residents and workers. In reality,

local authorities in the UK have limited powers to impose local taxes and are usually reluctant to do so. There are a few exceptions, the most notable of which is the Lea Valley Regional Park Levy that is funded through a levy imposed on Council Tax payers in Greater London, Hertfordshire and Essex and which was implemented by Act of Parliament.

5.2.5 Independent trusts and foundations

The National Lottery Heritage Fund has been a significant funder of greenspace projects and has invested more than £950 million in public parks and cemeteries over the last 25 years. This funding has helped transform over 900 parks across the UK, improving the experience for the 37 million people that use public parks every year. The NLHF continues to be a strong supporter of the UK's natural heritage and in it's new 10-year strategy, it has committed to supporting natural heritage and environmentally sustainable projects that help the UK meet its nature recovery targets and mitigate the impact of climate change on heritage.

The Landfill Communities Fund (LCF) is a tax credit scheme which enables landfill site operators to contribute money to organisations which are registered as Environmental Bodies. The fund allows Environmental Bodies and landfill operators to work together on projects which have significant environmental benefits and benefit communities near landfill sites.

Many trusts and foundations support projects that address issues around environmental sustainability and the climate change and biodiversity emergencies and develop community capacity to address these issues. However, most trusts reserve funding for registered charities or small community organisations and do not invite applications from local authorities.

5.3 Project options

This section sets out proposals for green infrastructure enhancement across Didcot, based on an assessment of current future provision developed during the research phase of the project.

Proposals are set out as short, medium and long-term objectives. While some proposals will require long-term planning and considerable resource inputs, other proposals can be actioned in the short term in collaboration with residents and partners. This can help to foster a culture around green infrastructure provision that can reflect the Garden Town principles set out in the "Super Green Town" chapter of the Didcot Garden Town masterplan, as expressed more fully in Section 3 of the Strategy.

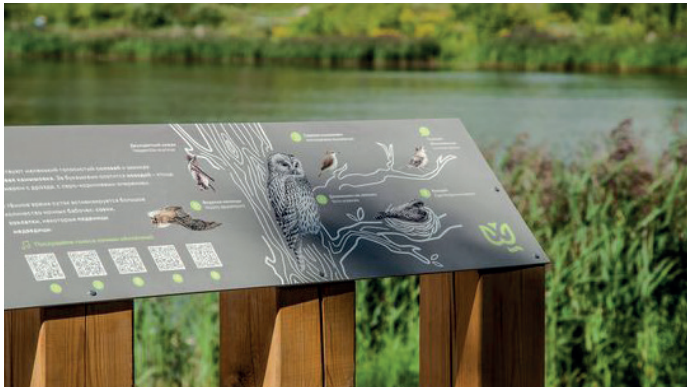
Although the Project Options consider Didcot sectionally, the over-arching ambition of the Strategy is to promote the inter-connectedness of Didcot and to use green infrastructure as the urban design element that binds the Town (both old and new) together.

The five segments are set out as previously stated in Section 3.5.1. Project Options for the five segments can be seen in Figures 21-25.

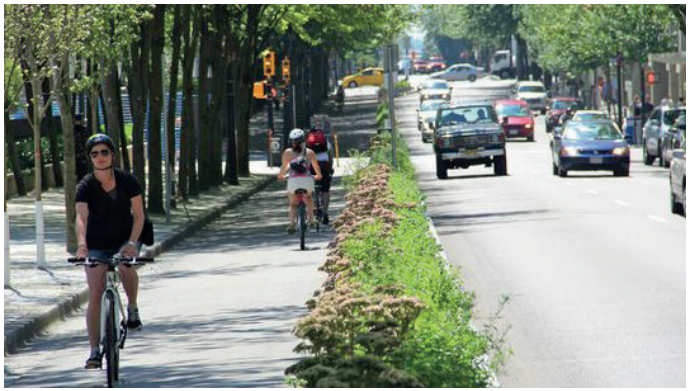
1. **North-east Didcot**
2. **South-east Didcot**
3. **South-west Didcot**
4. **North-west Didcot**
5. **Central Didcot**

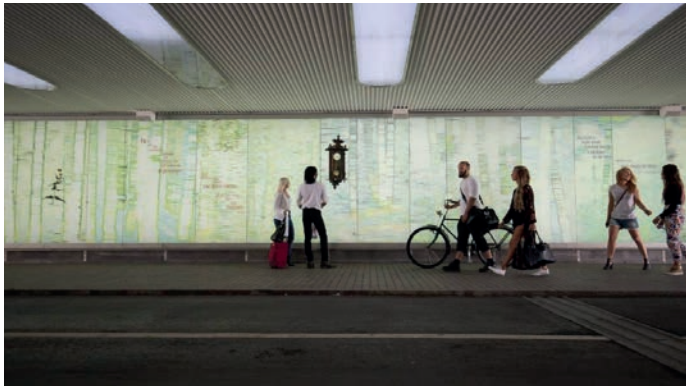
The images to the right are examples of potential implementations that could be seen across the short term, medium term, and long term plans.

Costs allocated to projects are estimates and may change over time depending on inflation and details of the projects when brought forward.








PROJECT OPTIONS

5.3 Project options

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Central Didcot

Headline green infrastructure enhancements

Short term 1-5 yrs

Medium term 5-10 yrs

Long term >10yrs

Item	Project Options	Estimated cost
1	Biodiversity corridor creation	£100,000
Entire area	Street tree planting (Station Road, Edinburgh Drive and in residential areas where space permits	£50,000
2	Develop mini-forests in car park areas	£100,000
3	Enhance cycle infrastructure in central Didcot as detailed in Didcot Local Cycling and Walking Infrastructure Plan	To be determined
4	Street greening and enhance pedestrian experience on Station Road	£500,000

Table 9: Central Didcot Project Options

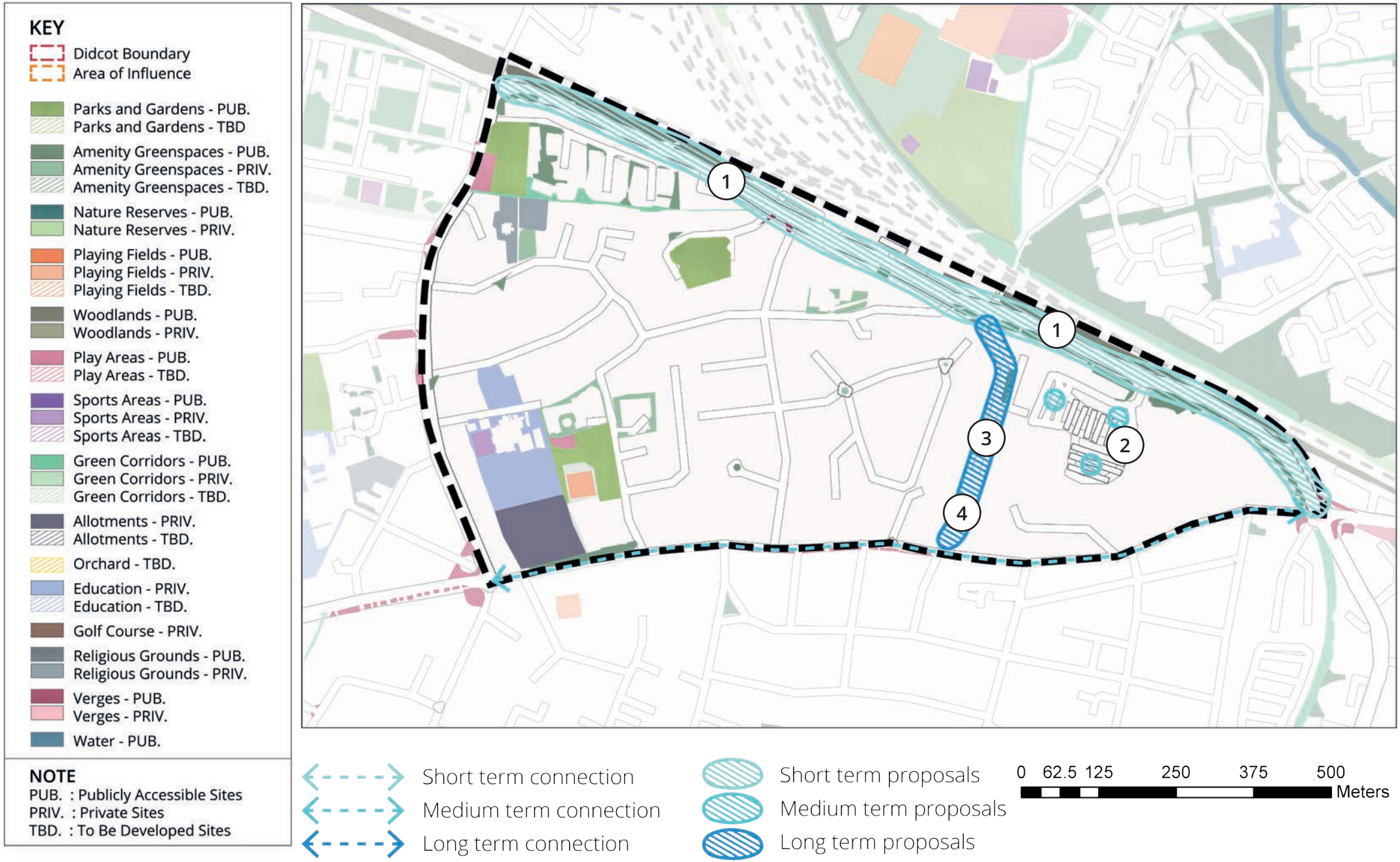


Figure 25: Central Didcot Project Options

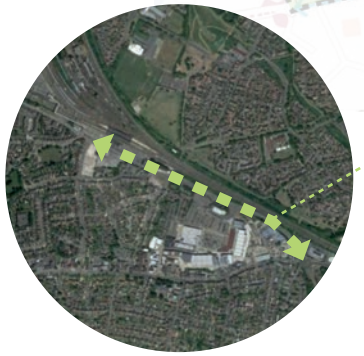
Central Didcot

Headline green infrastructure enhancements

Entire area — Street tree planting (Station Road, Edinburgh Drive and in residential areas where space permits)

1 — Biodiversity corridor creation

4 — Street greening and enhance pedestrian experience on Station Road



Central Didcot includes the commercial centre of the town to the east and west of Station Road including the Orchard Centre and its associated car parks and the Cornerstone and Cineworld complexes. The urban grain of the town centre rapidly transitions into low density, low rise residential streets west.

The quality of the town centre is dominated by hard landscape – large retail and service building complexes and extensive areas of car parking and hard landscape streetscape. Some soft landscaping has been introduced but this is on a relatively small scale and is disconnected. The area is largely devoid of street trees and there is little shade, exacerbating the urban heat island effect created by built infrastructure. Surface water drainage is achieved through conventional sub-surface systems.

There are opportunities to introduce significant greening into central Didcot's streets and car parks through the installation of new street tree planting. This will provide shade to counteract urban warming and will help to support air quality and surface water drainage. Connected soft landscape interventions can create biodiversity corridors across the town centre and soften the townscape. Some of these could also function as rain gardens to provide surface water attenuation to prevent localised flooding during extreme precipitation events. Although Station Road will remain open to bus traffic, measures already taken to re-define its visual quality can be further enhanced through planting and street activation and through the provision of improved cycling infrastructure (including defined cycle lanes, cycle parking facilities and connected routes).

The residential areas to the west are also largely lacking in street tree provision and there is physical space on most of the main roads (e.g. Haydon Road and Edinburgh Drive) to introduce shade-giving planting. Many of these streets have narrow verges maintained as short grass that provide no ecological benefit. These offer scope for the development of rain gardens (that will attenuate surface water and provide biodiverse corridors) and species-rich grass maintained through relaxed mowing regimes.

Central Didcot

Precedents

Rain gardens, Sheffield © Nigel Dunnett

Town greening, Sheffield © Nigel Dunnett

Broad Street pedestrianised, Oxford © Practicepublic

The Strand pedestrianised, London © mcr1974

Street planting, Sheffield © Nigel Dunnett

Pedestrian zone in Boston © CC

Street trees, rain gardens, Sheffield © Nigel Dunnett

Northbrook St pedestrianised, Newbury
© West Berkshire Council

Parklets © Meristem

North-east Didcot

Headline green infrastructure enhancements

Short term 1-5 yrs

Medium term 5-10 yrs

Long term >10yrs

Item	Project Options	Estimated cost
1	Open access to railway bridge connecting to Collett	To be determined
2	Protect Easton's Plantation for its biodiversity value	£0
3	Increase multi-functionality of green spine and greenspaces to include biodiversity connectivity, play, food growing, public art and making space for girls	£100,000
4	Develop SuDS measures in green spaces and along Cow Lane, Mersey Way and Tamar Way to address local flooding issues	£200,000
5	Enhance/complete Sustrans NCR 5 to include lighting signage and public art	£250,000
6	SuDS implementation in new proposed greenspace west of Franklin Gardens	£0
7	Create a fully accessible, active travel and leisure community link route from Didcot North development area to Wittenham Clumps	£500,000
8	Make changes to Cow Lane underpass in accordance with Didcot LCWIP	To be determined

Table 6: North-east Didcot Project Options

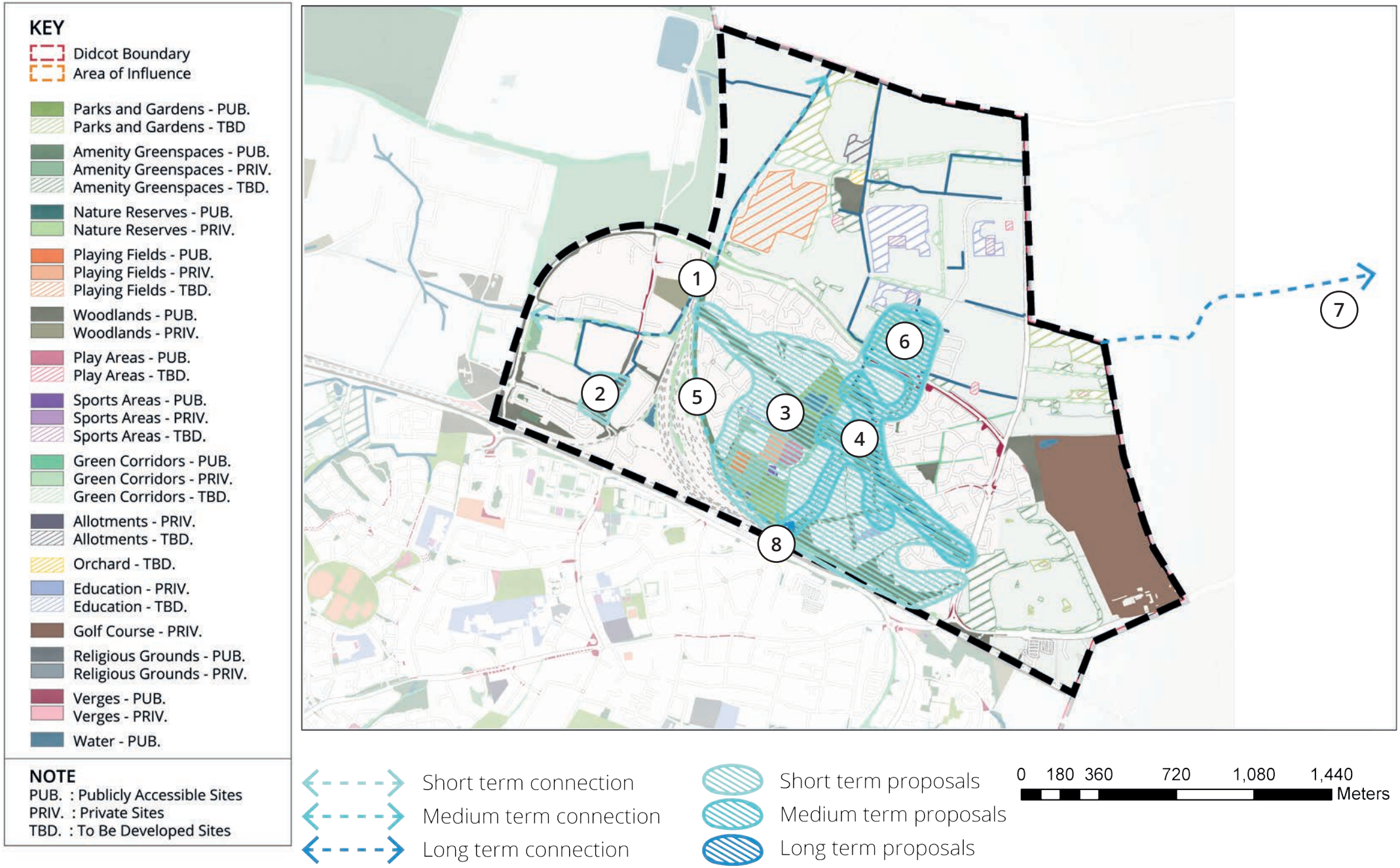


Figure 22: North-east Didcot Project Options

North-east Didcot

Headline green infrastructure enhancements

1. Open access to railway bridge connecting to Collett
3. Increase multi-functionality of green spine and greenspaces to include biodiversity connectivity, play, food growing, public art and making space for girls
4. Develop SuDS measures in green spaces and along Cow Lane, Mersey Way and Tamar Way to address local flooding issues
5. Enhance/complete Sustrans NCR 5 to include lighting signage and public art
7. Link from Didcot North development area to Wittenham Clumps

The Ladygrove area of Didcot is characterised by two intersecting areas of green infrastructure provision. The pylon line running south-east to north-west from Abingdon Road to Old Bourne is a linear greenspace, approximately 40m wide. The southern section of the corridor follows the course of the Ladygrove Brook, which turns northwards at Tamar Way. At its mid-point, the corridor intersects with a green spine of spaces running south-west to north-east that includes Ladygrove Hill, Ladygrove estate playground and Willowbank Leisure Centre. An established walking and cycling route runs along the western and southern boundary of this zone, forming part of the Sustrans NCR between Culham and West Hagbourne. Development sites to the north and east of Ladygrove could be incorporated into new green infrastructure and active travel networks across Didcot.

The completion of the Sustrans NCR is a major priority for active travel across Didcot. This will include the installation of lighting, enhanced signage, enhanced sight lines (especially in the south-east Didcot section) and public art interventions. To the east, a new walking and cycling connection can be developed between the north-east Didcot development site and Wittenham Clumps to the east.

Central Ladygrove is prone to flooding and the integration of flood attenuation measures (rain gardens, swales and attenuation basins) could be prioritised within the flood risk zone.

The pylon line and Ladygrove green spine present opportunities for enhanced biodiversity connectivity through the creation of tree and scrub belts and the relaxing of mowing regimes to allow for the development of species rich grasslands. Orchard planting, building on existing fruit tree planting along the Ladygrove Brook, could encourage foraging.

The design of public opens spaces can factor in considerations around design for girls and incorporate playable landscape elements.

Cycle route lighting © Louis Poulsen, Kristofer Ryde

National Cycle Network, Route 626 © Sustrans

Cycle route accessibility and artwork © Sustrans

Urban foraging © Marco Kesseler

Spen Valley Greenway artwork © Sustrans

Street rain gardens © Meristem

Street rain gardens © Meristem

Cycle route lighting © Louis Poulsen, Kristofer Ryde

Family foraging © CC

South-east Didcot

Headline green infrastructure enhancements

Short term 1-5 yrs

Medium term 5-10 yrs

Long term >10yrs

Item	Project Options	Estimated cost
1	(Phase 1 of Sustrans NCR 544) Introduce clear sight lines, lighting and improved signage and clear exits to Sustrans NCR 544 to make it safer for users (especially women and girls)	£100,000
2	Active Communities Nature Trail	External funding
3	Creation of tranquil space in Bishops Orchard/Millennium Wood	£50,000
4	Community Orchards – Fleet Meadow	£25,000
Entire area	(Phase 1 of street trees) Street tree planting and SuDS across entire area where space permits	£200,000
Entire area	(Phase 2 of street trees) Street tree planting and SuDS across entire area where space permits	£250,000
5	(Phase 2 of Sustrans NCR 544) Complete Sustrans NCR 544 at Didcot Casuals/Millennium Wood	£100,000
6	Extend Millennium Wood and surrounding woodland to Mowbray Nature reserve	£100,000
7	Enhance off-road cycle provision – Broadway east	£75,000
8	Provide enhanced walking/cycling link from Edmonds Park to the Croft and Sustrans NCR 544	£100,000
9	Develop multi-functionality of amenity greenspace to east of Jubilee Way – biodiversity connectivity, play, SuDS etc.	£150,000

Table 7: South-east Didcot Project Options

External funding streams to be sought

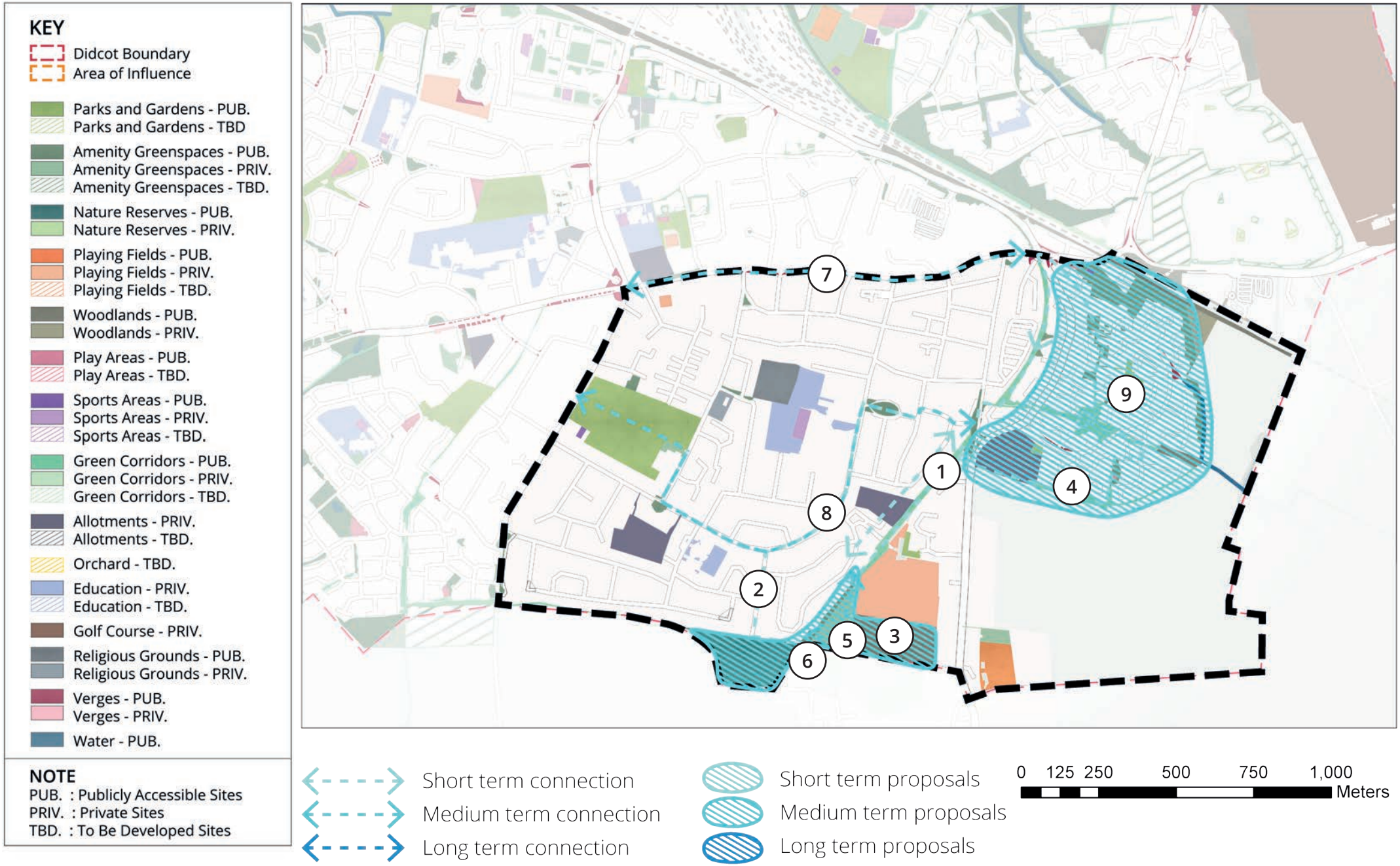
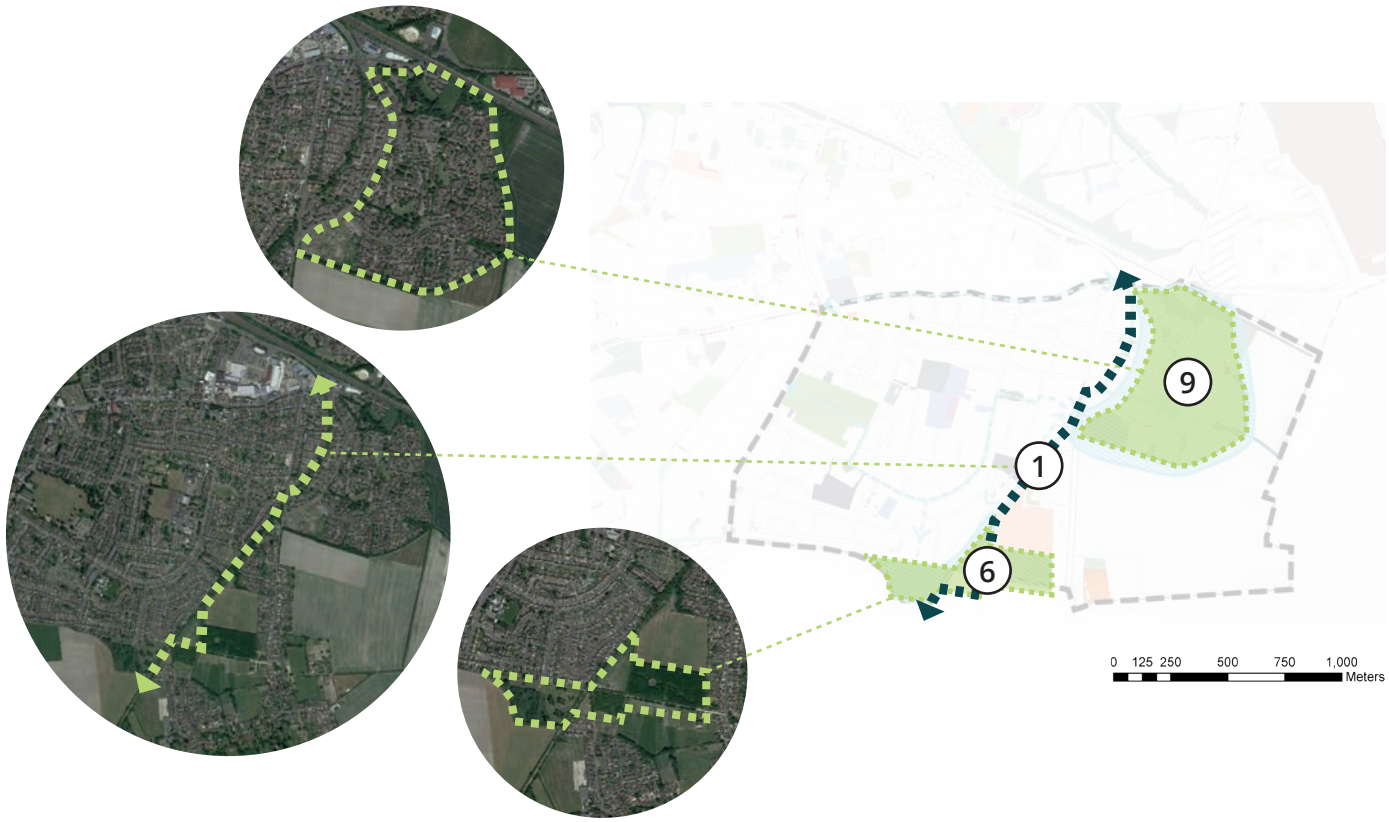


Figure 23: South-east Didcot Project Options

South-east Didcot

Headline green infrastructure enhancements

1. Introduce clear sight lines, lighting and improved signage and clear exits to Sustrans NCR 544 to make it safer for users (especially women and girls)
6. Extend Millennium Wood and surrounding woodland to Mowbray Nature reserve
9. Develop multi-functionality of amenity greenspace to east of Jubilee Way – biodiversity connectivity, play, SuDS etc.



The main residential areas of south-east Didcot are relatively under-provided with publicly accessible greenspace. Green infrastructure connectivity could be enhanced across the area, linking Edmonds Park and the Croft to the Sustrans NCR, north-east Didcot and the Hagbournes to the south. A swathe of greenspaces along the southern boundary of Didcot (Mowbray Nature Reserve, Millennium Wood, Bishops Orchard and the Harwood Road allotment site), which currently function as disjointed individual spaces, can be better connected thematically. These contiguous spaces could bookend a continuous greenspace connection on Didcot's southern boundary and part of a continuous greenspace ring around the whole town.

Although the route of the Sustrans NCR link to central Didcot is largely established, much of the route follows a former railway cutting. The lack of lighting, signage and significant levels of planting on the cutting embankments contribute to a perceived lack of personal safety on this section of the route, especially for women and girls. Lighting provision, better signage, clear exit points and improved sight lines would all improve the safety and utility of this important green link.

As for other residential areas of Didcot, low density housing neighbourhoods provide opportunities for street tree planting, rain garden installation and relaxed mowing regimes for grass verges to enhance climate change resilience and provide ecological corridors. These interventions will be particularly significant in connecting areas of current green infrastructure provision (e.g. to connect Edmonds Park, Queensway, the Croft and the Sustrans NCR).

Residential areas to the east of Jubilee Way (encircled by Sandringham Road) have been developed more extensively, interspersed with significant areas of amenity greenspace (mainly consisting of short grass with trees). There are opportunities to diversify planting quality and introduce orchards and food growing opportunities and play provision to increase the value of these spaces to local residents.

Marked cycle route © Landezine

Play in multifunctional greenspace © Yalp

Clear sight lines and lighting © Kristofer Ryde

Multifunctional amenity greenspace © we!park

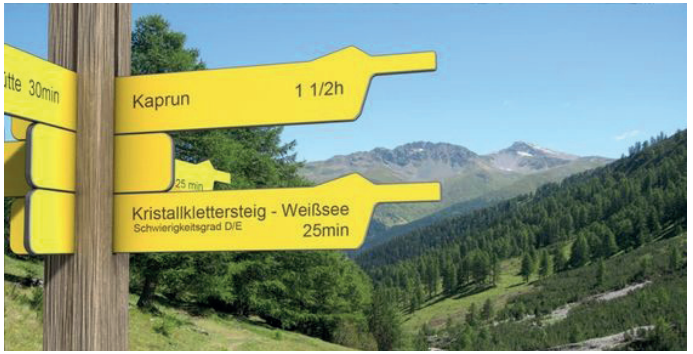
Biodiverse amenity greenspace © Wheat Ridge Parks

Street rain gardens © Meristem

Before After

Before and after of a playground © Meristem

Rain gardens, street trees (Sheffield) © Nigel Dunnett



Exit distances marked signage © Lukas Bast

South-west Didcot

Headline green infrastructure enhancements

Short term 1-5 yrs

Medium term 5-10 yrs

Long term >10yrs

Item	Project Options	Estimated cost
1	(Phase 1) Enhance/develop southern perimeter route between Mowbray Nature Reserve and proposed Alma Park/ Neighbourhood Park/Boundary Park/Robin Way Park. Incorporate play and exercise features	£200,000
1	(Phase 2) Enhance/develop southern perimeter route between Mowbray Nature Reserve and proposed Alma Park/ Neighbourhood Park/Boundary Park/Robin Way Park. Incorporate play and exercise features	£300,000
2	Adjust mowing regime and introduce biodiversity enhancements into Boundary Park and Neighbourhood Park	£100,000
3	Extend woodland fringe between Great Western Park and Valley Park to include section of Neighbourhood Park	£500,000
4	Built multi-functionality into proposed Common Park – biodiversity connectivity, SuDS, play, food growing and design for women and girls	£0
5	Cycling and walking connection to Milton Park interchange and to Great Western Park/Broadway/Edmonds Park/Valley park	£0
6	Science bridge – incorporate SuDS, cycling/walking provision and tree planting/biodiversity corridor enhancement into engineering design	£0

Table 8: South-west Didcot Project Options

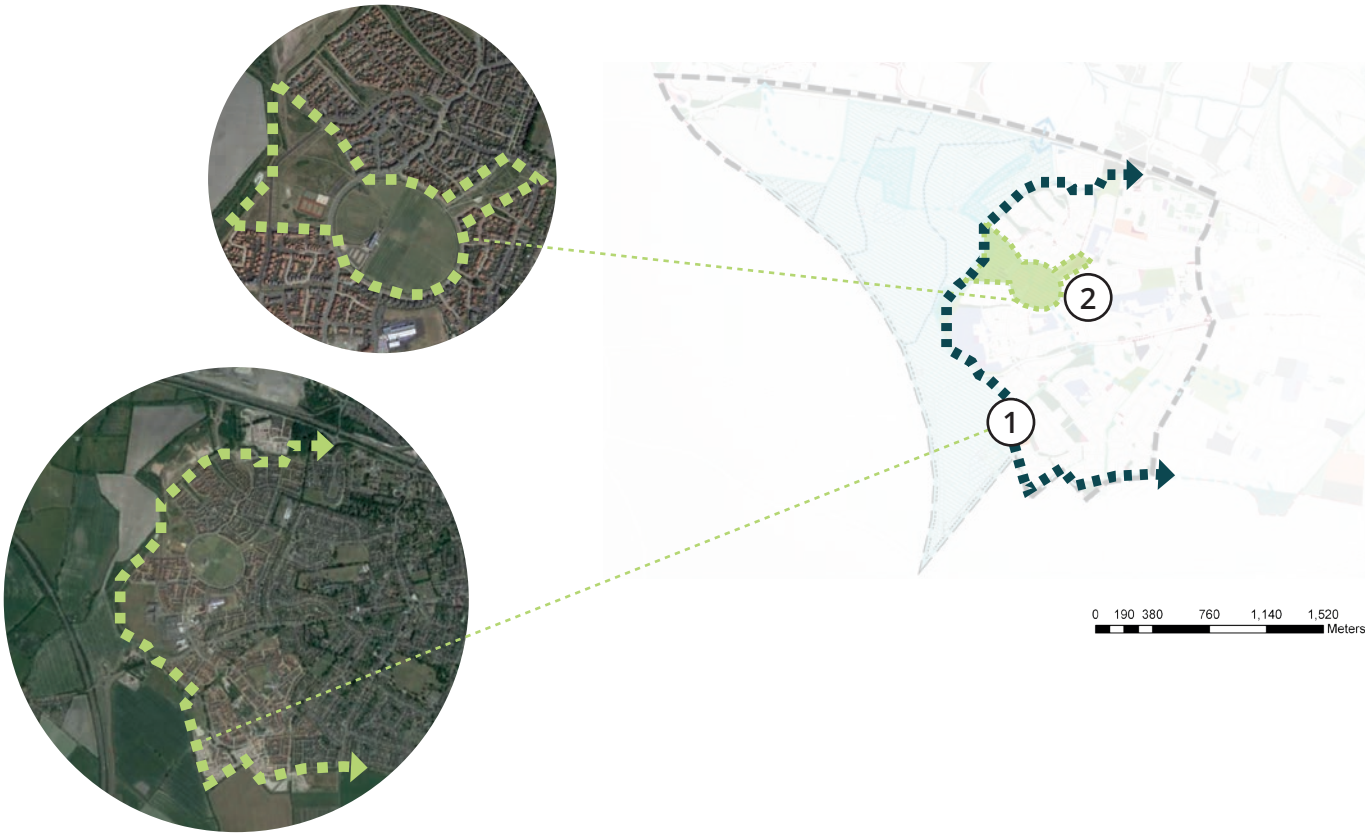
Figure 24: South-west Didcot Project Options

South-west Didcot

Headline green infrastructure enhancements

1. Enhance/develop southern perimeter route between Mowbray Nature Reserve and proposed Alma Park/Neighbourhood Park/Boundary Park/ Robin Way Park. Incorporate play and exercise features

2. Adjust mowing regime and introduce biodiversity enhancements into Boundary Park and Neighbourhood Park



The development of Great Western Park and Valley Park is significantly increasing the area of south-west Didcot. Green infrastructure provision could form part of development planning from the outset to ensure that these new areas of housing are connected to existing neighbourhoods with cycling and walking infrastructure and wildlife corridors (some of which can be provided by the retention of existing hedge lines and watercourses). Connectivity between existing greenspaces on the (current) western boundary of Didcot (Robin Way Park, Boundary Park, Neighbourhood Park) can be enhanced to create the Didcot green ring, linked to Mowbray Nature Reserve and the Sustrans NCR to the east. East to west connectivity could also enhanced across the centre of the area, joining Valley Ark/'Local Park' (within the Valley Park development) to the Park Drive underpass in the north-west (connecting to Milton Park) and Wintergreen/Three Fields and Edmonds Park to the south-east.

The green infrastructure quality of existing greenspaces (Boundary Park, Neighbourhood Park) can be adjusted to deliver an enhanced range of outcomes (balanced with established uses such as organised sports). These spaces are set largely to short grass with low biodiversity value. Tree planting (including small woodland areas) could be introduced and the management of the herb layer adjusted to enhance species density and diversity and provide biodiversity connectivity. These extensive areas also provide opportunities for surface water attenuation that could also support biodiversity resilience.

Cycle and walking route © Simon Vine

Play © Play Spect

Cycle and walking route © Hervé Abbadie

Play © krakow.z-dzieckiem.pl

Relaxed mowing and natural play © Sigrun Lobst

New routes with signage © Winkelmeier

Relaxed mowing and play © Sarah Lacombe

Play and exercise © Steffen Gruss

Biodiversity and play © Kris van Ingelghem

Cycle and walking route © Dependable Productions

North-west Didcot

Short term 1-5 yrs | Medium term 5-10 yrs | Long term >10yrs

Item	Project Options	Estimated cost
1	Enhance Milton Park to Milton Gateway walking/cycling link	To be determined
2	Enhance A4130/Station Road cycle infrastructure	To be determined
3	Enhance cycle infrastructure within Milton Park (Park Drive/Innovation Drive/Jubilee Avenue)	External funding
4	SuDS (rain gardens and swales) on Milton Park road network	External funding
5	Cycle storage and green gym/trim trails across Milton Park	External funding
6	Pedestrian/cycle and biodiversity corridor links to Science Bridge route through Didcot A	£75,000
7	Establish and strengthen walking/cycling link between Milton Park and NRC 5	To be determined

Table 5: North-west Didcot Project Options

External funding streams to be sought

Significant areas of north-west Didcot are comprised of sites reclaimed from industrial processes (Didcot A and B and extraction sites to the north).

Potential future development of these sites offers opportunities for incorporating new green infrastructure through the design and construction process rather than retrofitting green infrastructure to existing development. This approach will secure better connectivity with the area's existing green spine of Milton and Sutton Courtenay Nature Reserves.

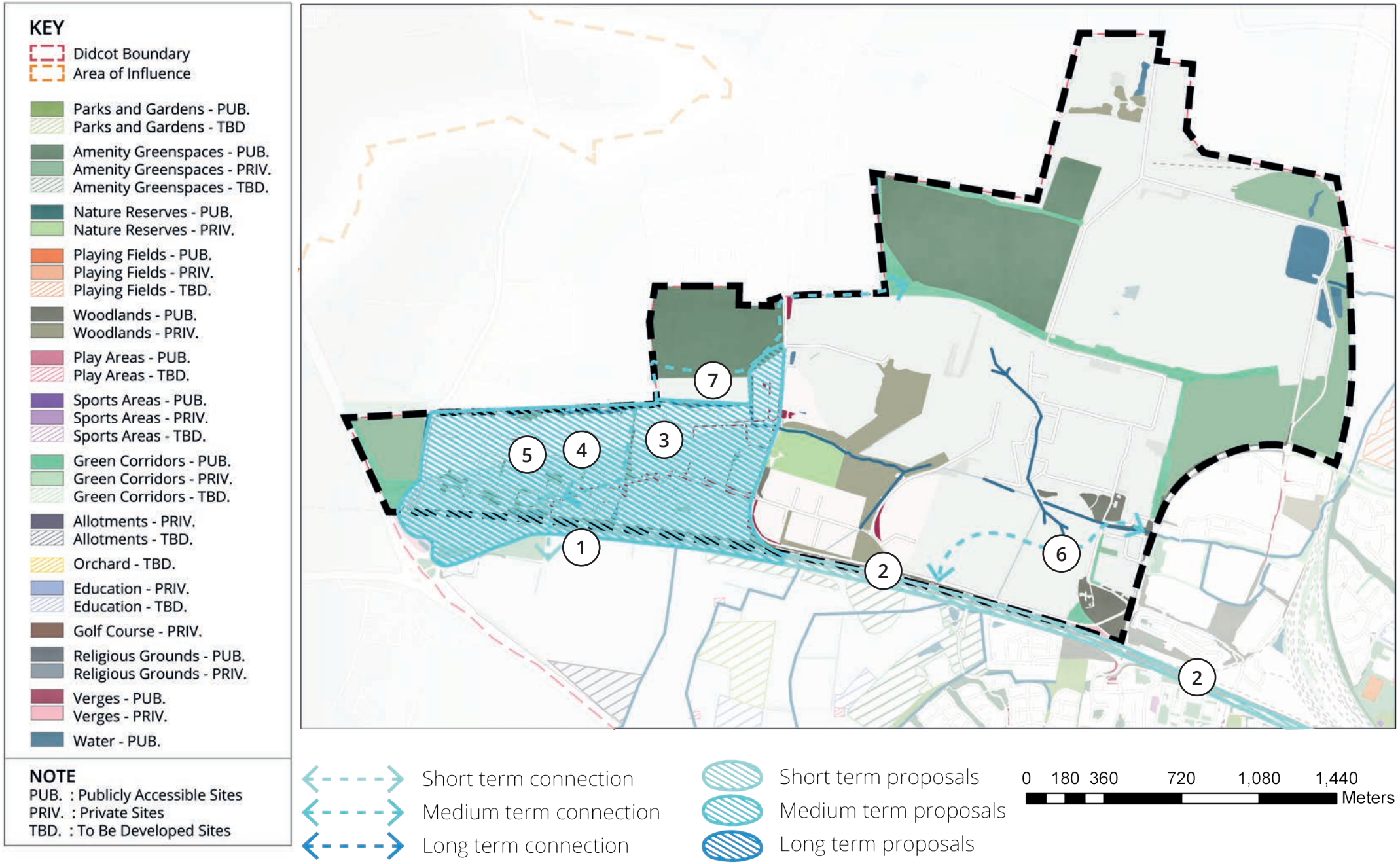


Figure 21: North-west Didcot Project Options

Cycle path, Salford © Hackney Cyclist

Brown hairstreak, species of local importance © CC

West Sussex © Arabella Lennox-Boyd

White-lined snout moth, species of importance © CC

SuDS, Salford © The Ranty Highwayman

Hedgehog, species of local importance © CC

Woodland trail © Stimson Studio

Relaxed mowing © The Plant Specialist

Planted filter strip © Panayoti Kelaidis

5.4 Conclusion

The Didcot Garden Town project offers a unique opportunity to embed green infrastructure into the fabric of Didcot and enhanced green infrastructure can be the urban design element that unifies old and new Didcot and joins the Town to its rural hinterland and the important innovation centres in the Oxford innovation corridor. The successful development of this corridor will depend on attracting and retaining talent and all the available evidence suggests that the most successful towns and cities across the world have made the provision of high-quality green infrastructure a priority for urban development. The implementation of this Strategy and the ecosystem services that will flow as a consequence will be essential to the health and wellbeing of people living and working in Didcot, to the Town's resilience in the face of the climate change and biodiversity emergencies and to Didcot's future economic success.

This Strategy sets out the benefit flows that good quality green infrastructure can deliver, providing a clear business case for investment. The Strategy also specifies a programme of green infrastructure interventions that can be delivered over the short, medium and long term to produce these outcomes.

The value of ecosystem services across England has been illustrated in *England Natural Capital Accounts: 2023* produced by the Office for National Statistics[1]. The total asset value of ecosystem services provided by natural capital across England in 2021 is estimated at £1.5 trillion. The asset value of selected ecosystem service provision in 2021 includes:

Health benefits of recreation	£370 billion
Tourism and recreation expenditure	£291 billion
Greenhouse gas regulation	£7 billion
Urban heat regulation	£17 billion
Noise regulation	£807 million

In respect of health benefits alone, these figures suggest that in 2021, the value of annual per capita health benefits derived from access to the natural environment amounted to £356. This is equivalent to over £11.5 million in Didcot, based on the Town's current population in that year and £12.8 million based on the 2023 population.

Although a natural capital account has not been produced specifically for Didcot, this would demonstrate a significant ecosystem service flow return from the Town's natural capital, reflecting the national position.

In 2023, Didcot provides 6.6 hectares of publicly accessible greenspace per 1,000 head of population. Taking into account the greenspace that will come on stream, and the projected population increase, this provision will have declined to 5.3 hectares in this year. Thus while demand for access to natural greenspace will increase over the next 8 years, the provision of greenspace relative to Didcot's population will decline.

The retention of these ecosystem service flows will depend on ongoing investment in the quantity and quality of green infrastructure in the face of this increase in demand. The preface to Chapter 8 of the Garden Town Masterplan sets out a vision for Didcot's green infrastructure:[2]

"It's all in the name: Didcot is going to be a garden town. But it's important that this new handle is more than just a catchy brand – Didcot must take ownership of its garden town status and make "garden" part of its identity."

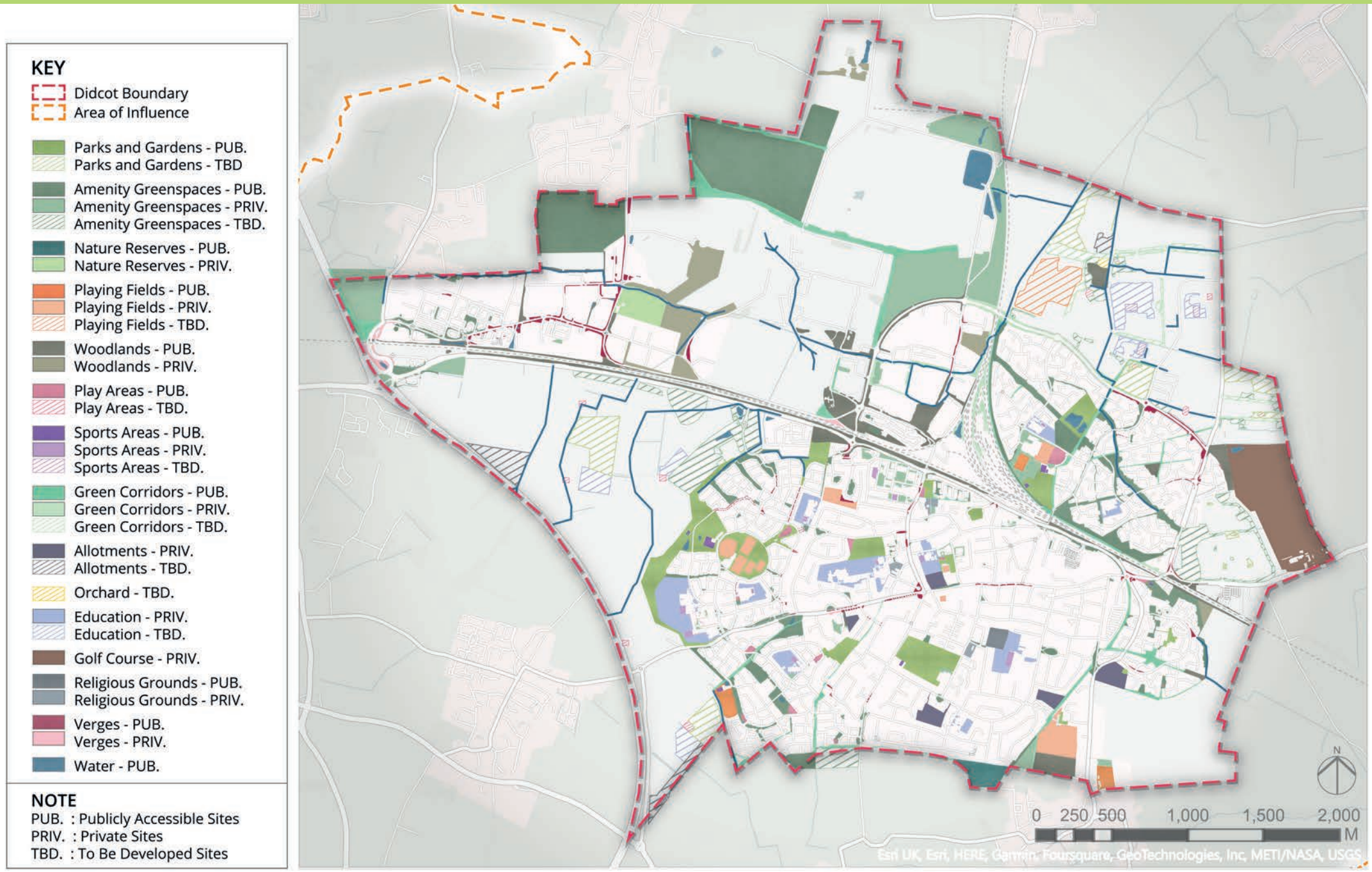
The implementation of this Strategy can support the delivery of this vision and secure the ecosystem service flows upon which the health, wellbeing, environmental adaptedness and success of the expanded town will depend.

Works Cited

1. Office for National Statistics (ONS), released January 25, 2023, statistical bulletin, *England Natural Capital Accounts: 2023*.

2. "Chapter 8: A Super Green Town" in Vale of White Horse District Council, *Didcot Garden Town Delivery Plan* (2017), p. 214.

6 APPENDICES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Amenity Greenspaces - PUB.
Amenity Greenspaces - PRIV.
Amenity Greenspaces - TBD.
Nature Reserves - PUB.
Nature Reserves - PRIV.
Playing Fields - PUB.
Playing Fields - PRIV.
Playing Fields - TBD.
Woodlands - PUB.
Woodlands - PRIV.
Play Areas - PUB.
Play Areas - TBD.
Sports Areas - PUB.
Sports Areas - PRIV.
Sports Areas - TBD.
Green Corridors - PUB.
Green Corridors - PRIV.
Green Corridors - TBD.
Allotments - PRIV.
Allotments - TBD.
Orchard - TBD.
Education - PRIV.
Education - TBD.
Golf Course - PRIV.
Religious Grounds - PUB.
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Water - PUB.
NOTE
PUB. : Publicly Accessible Sites
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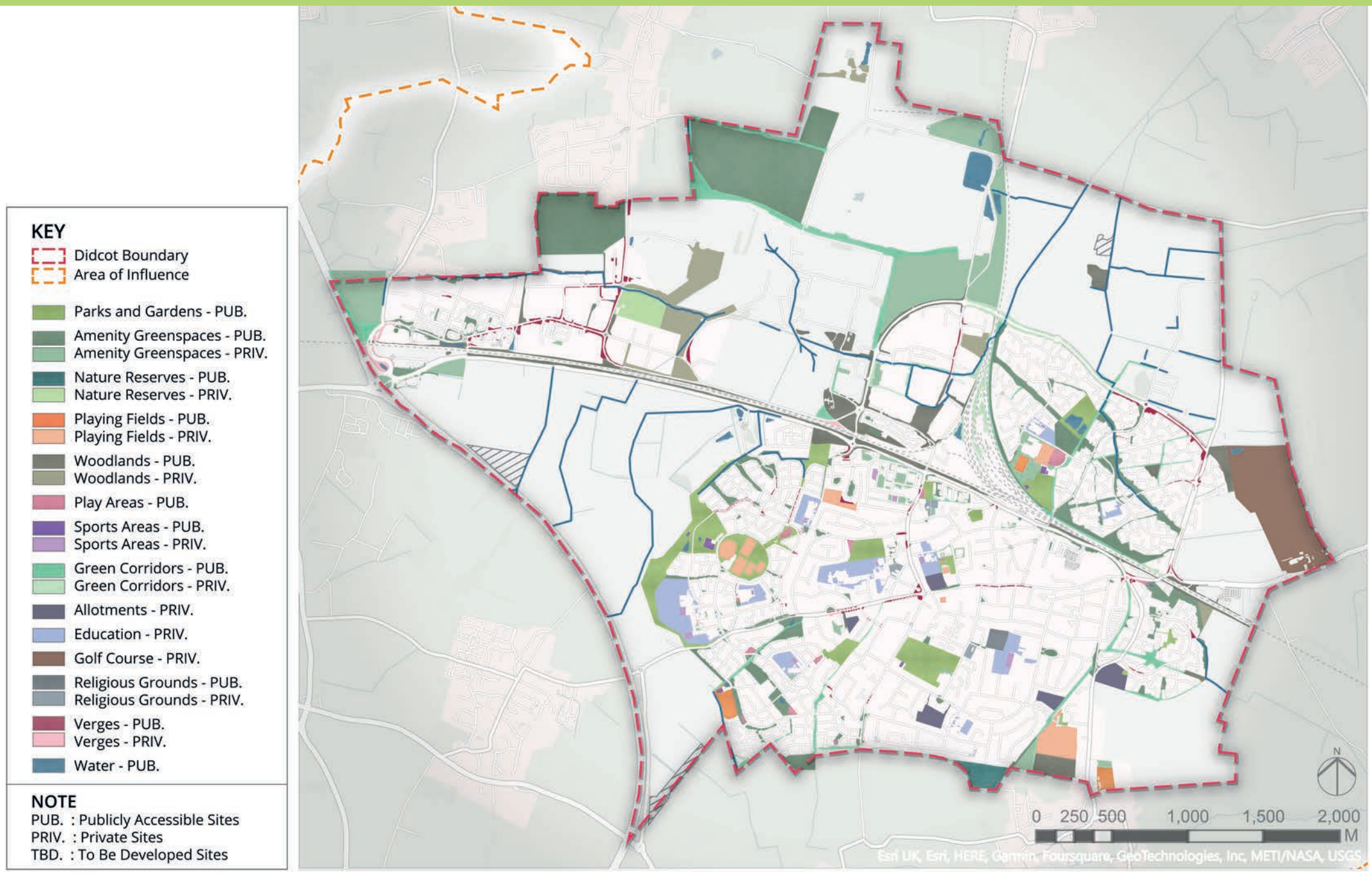
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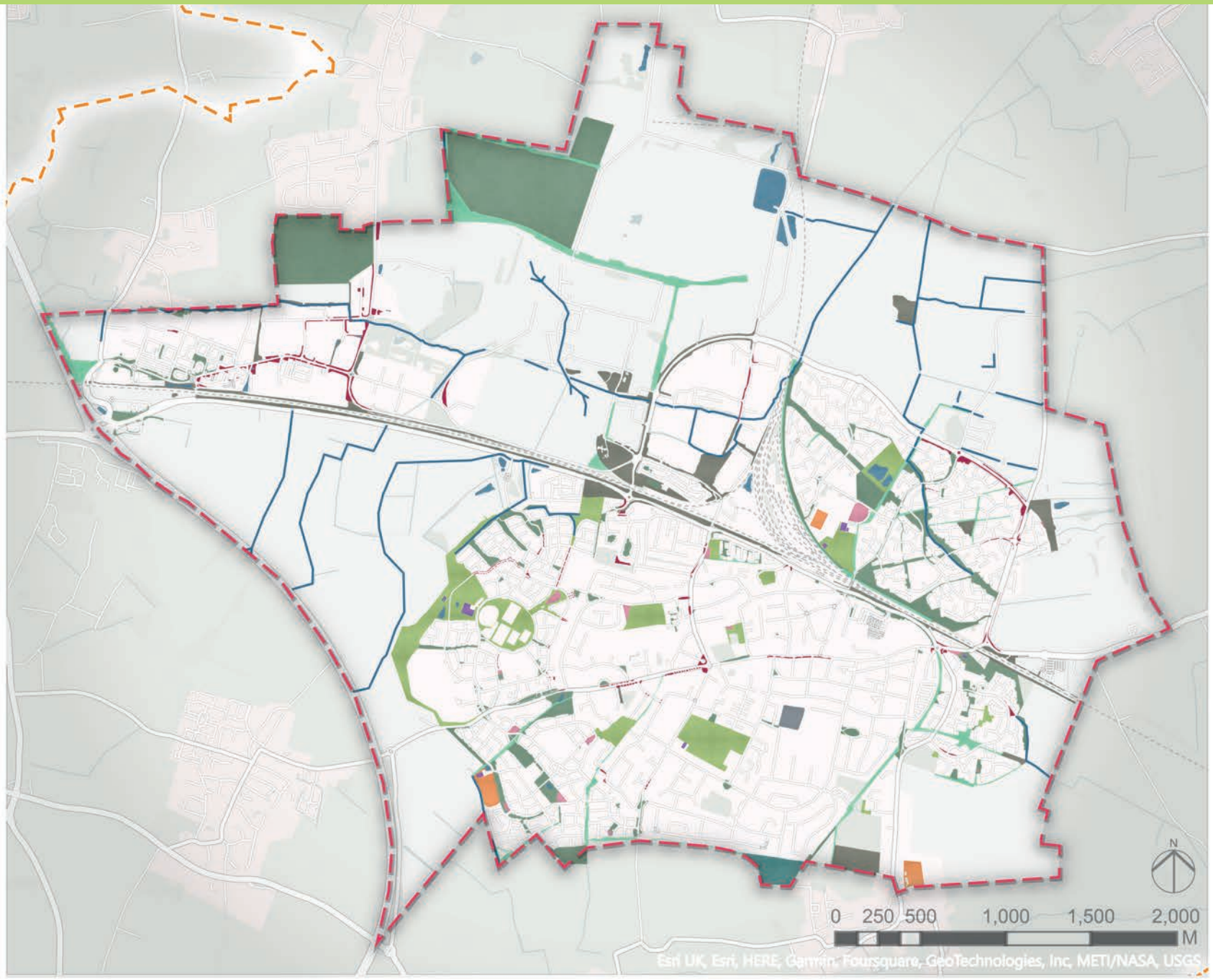
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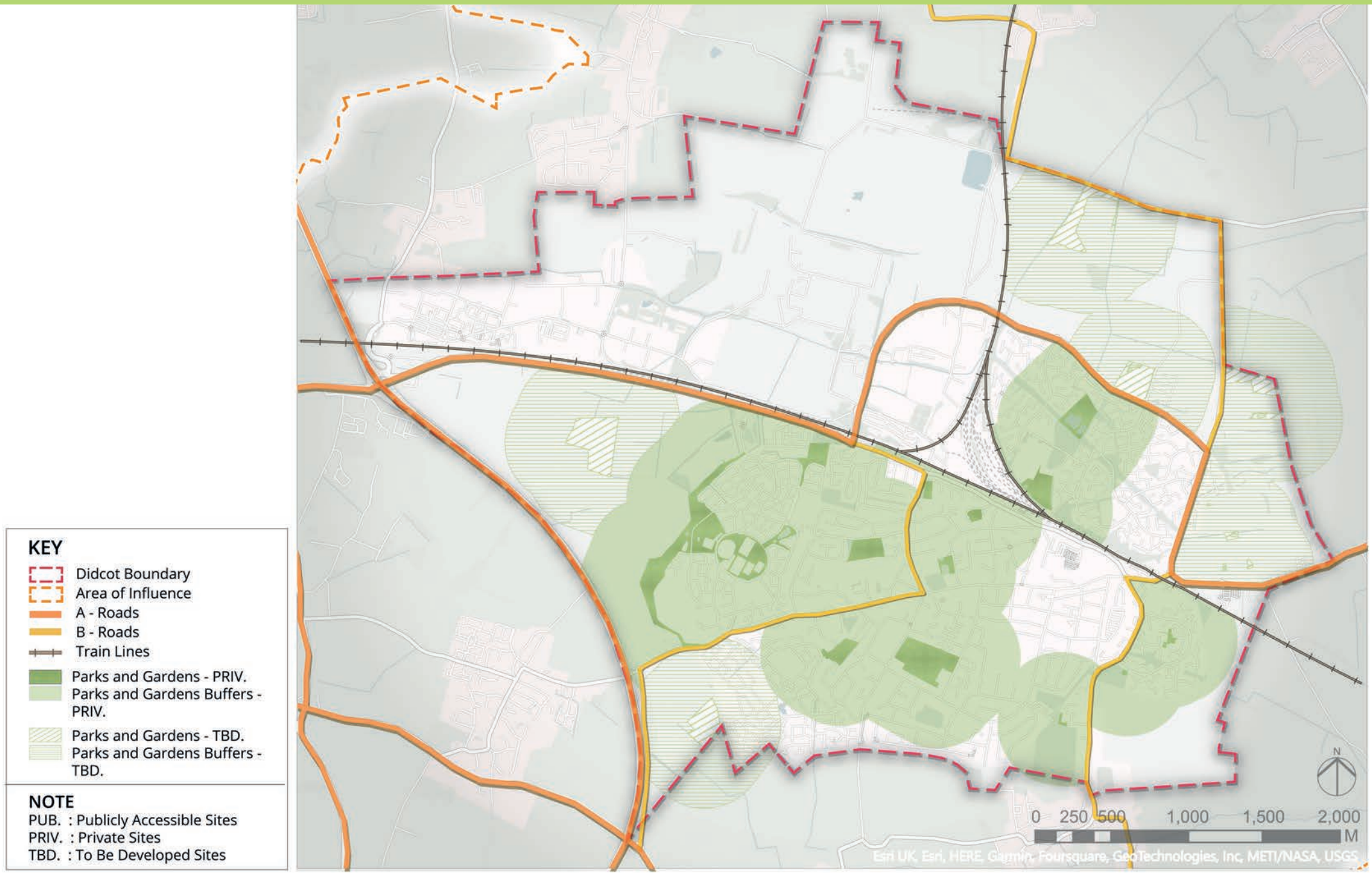
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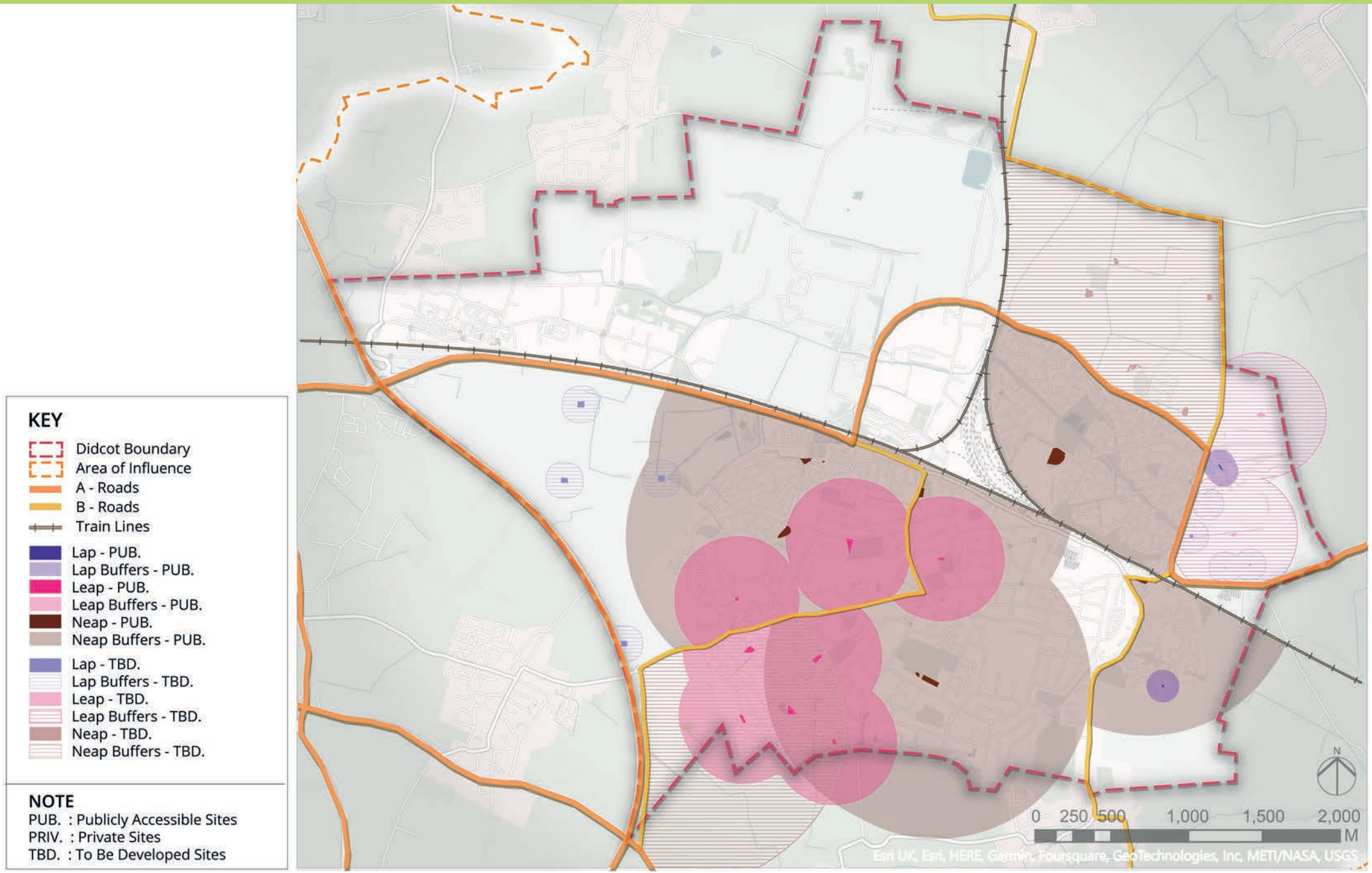
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Neap - PUB.
Neap Buffers - PUB.
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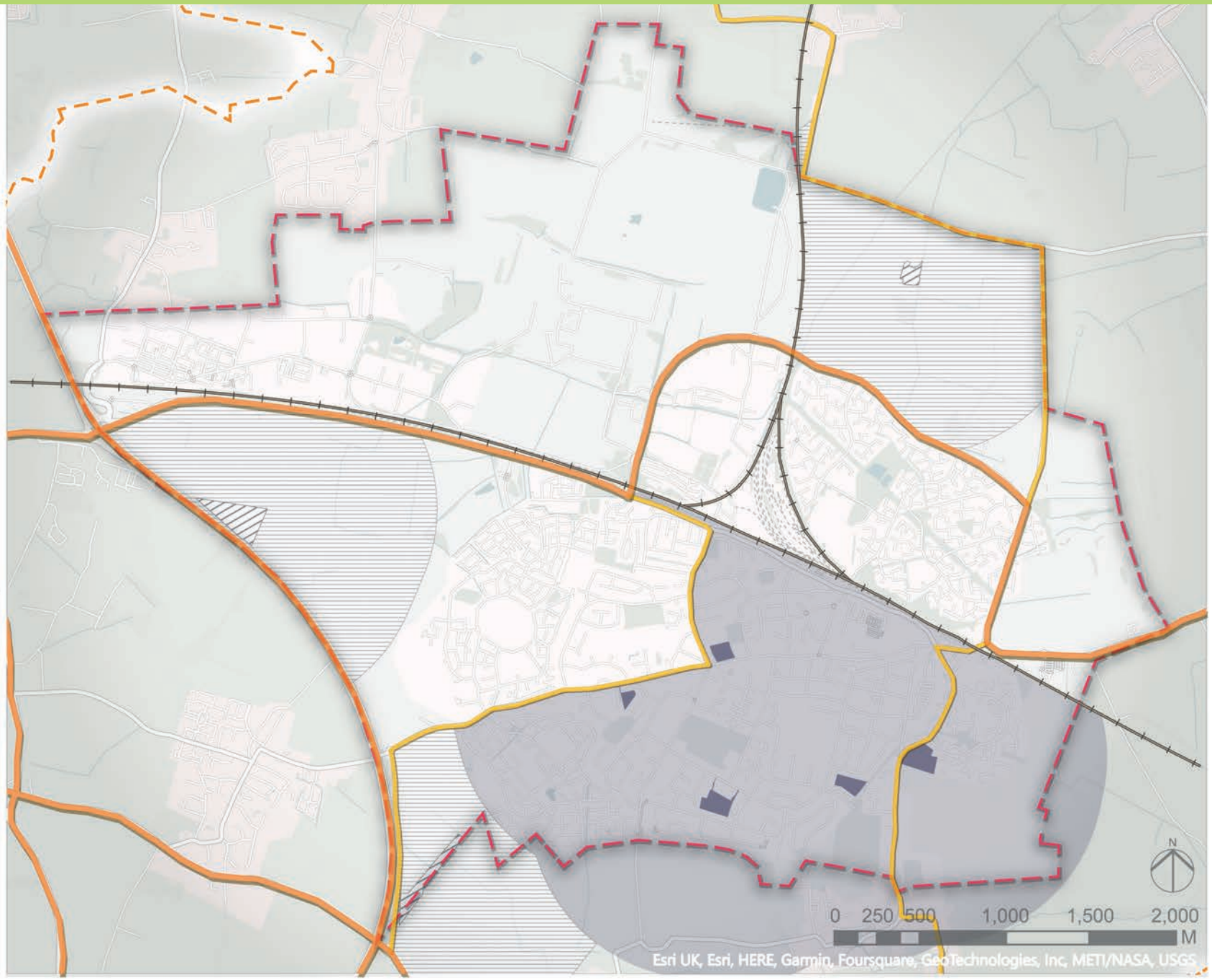
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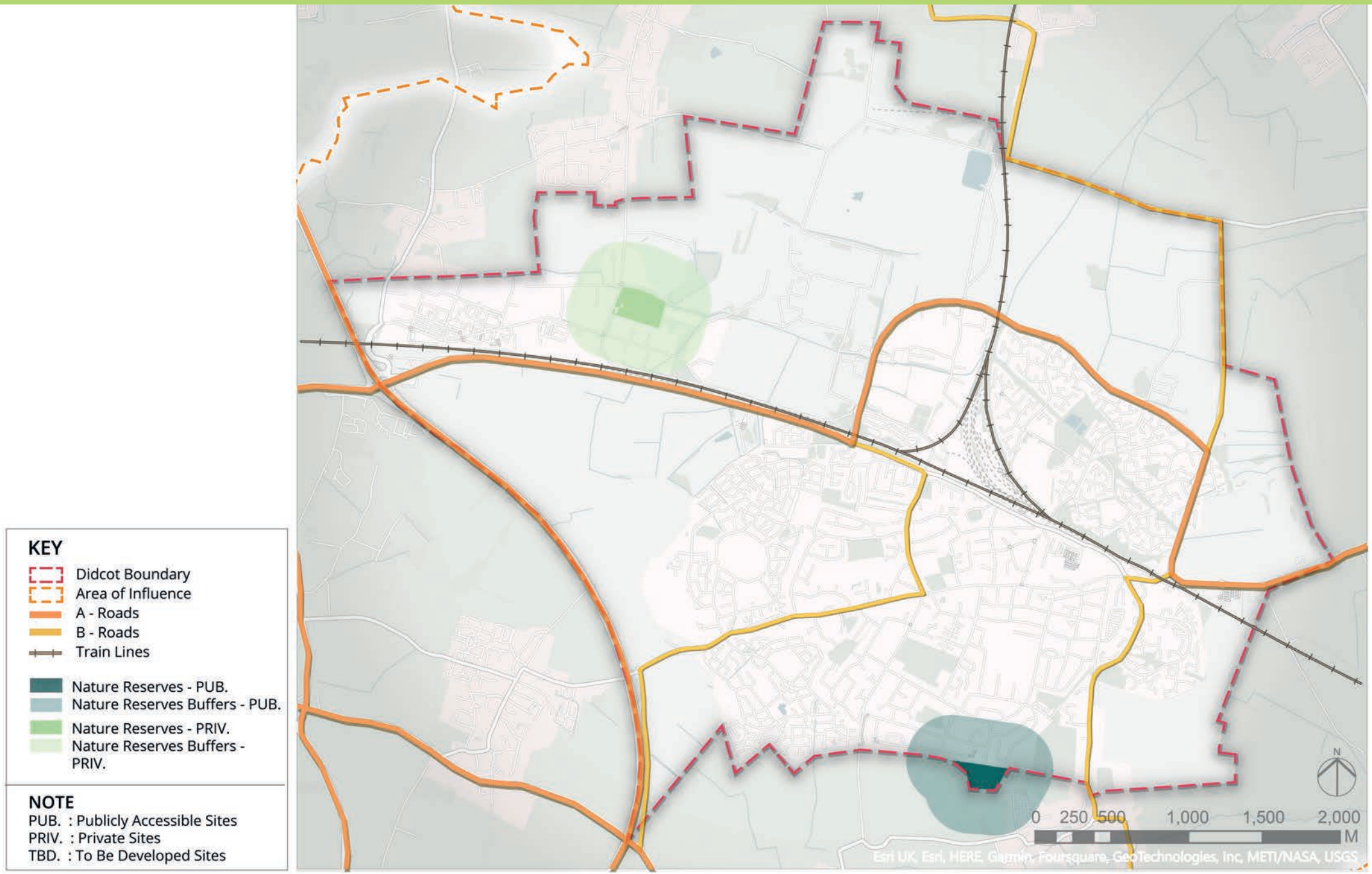
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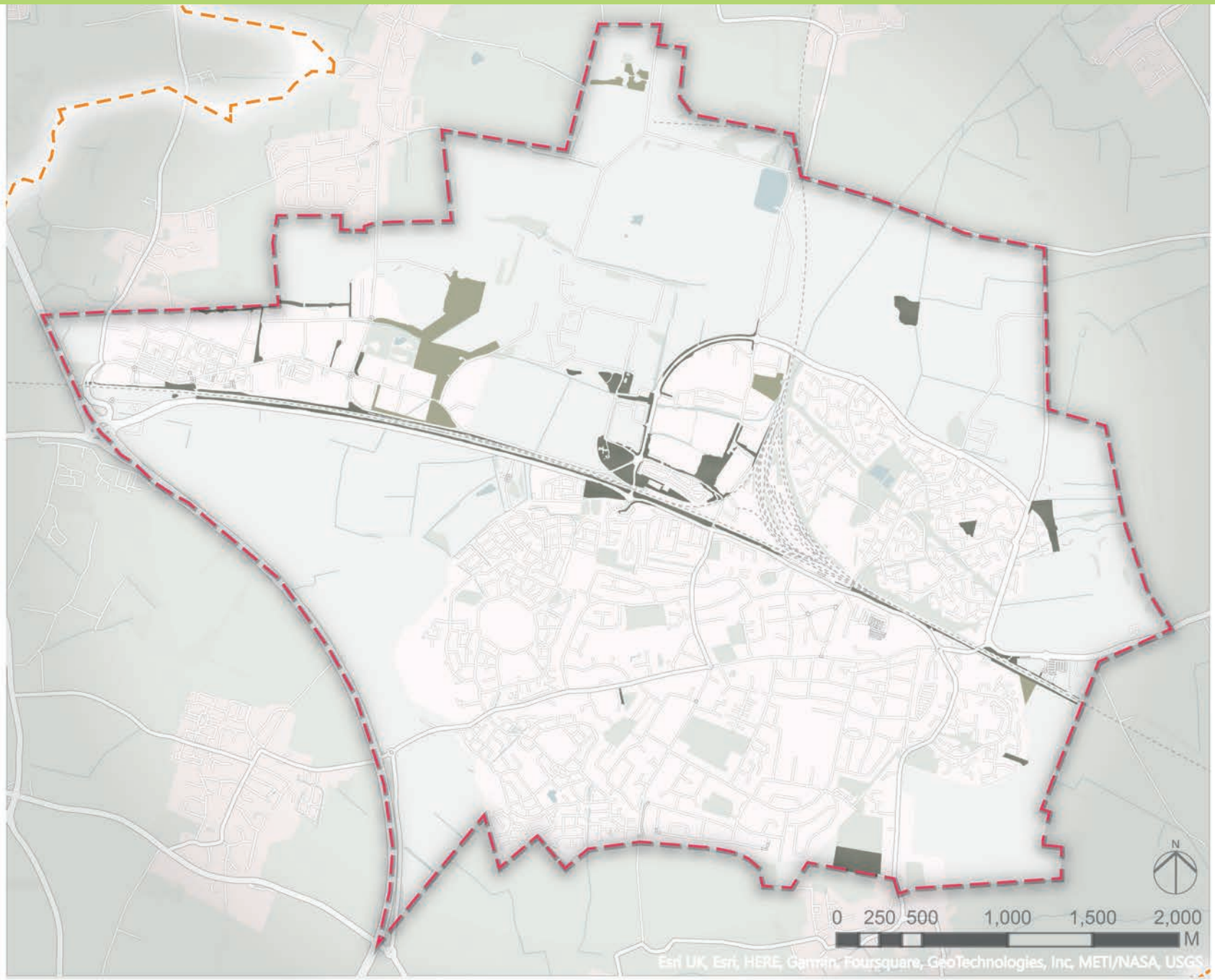
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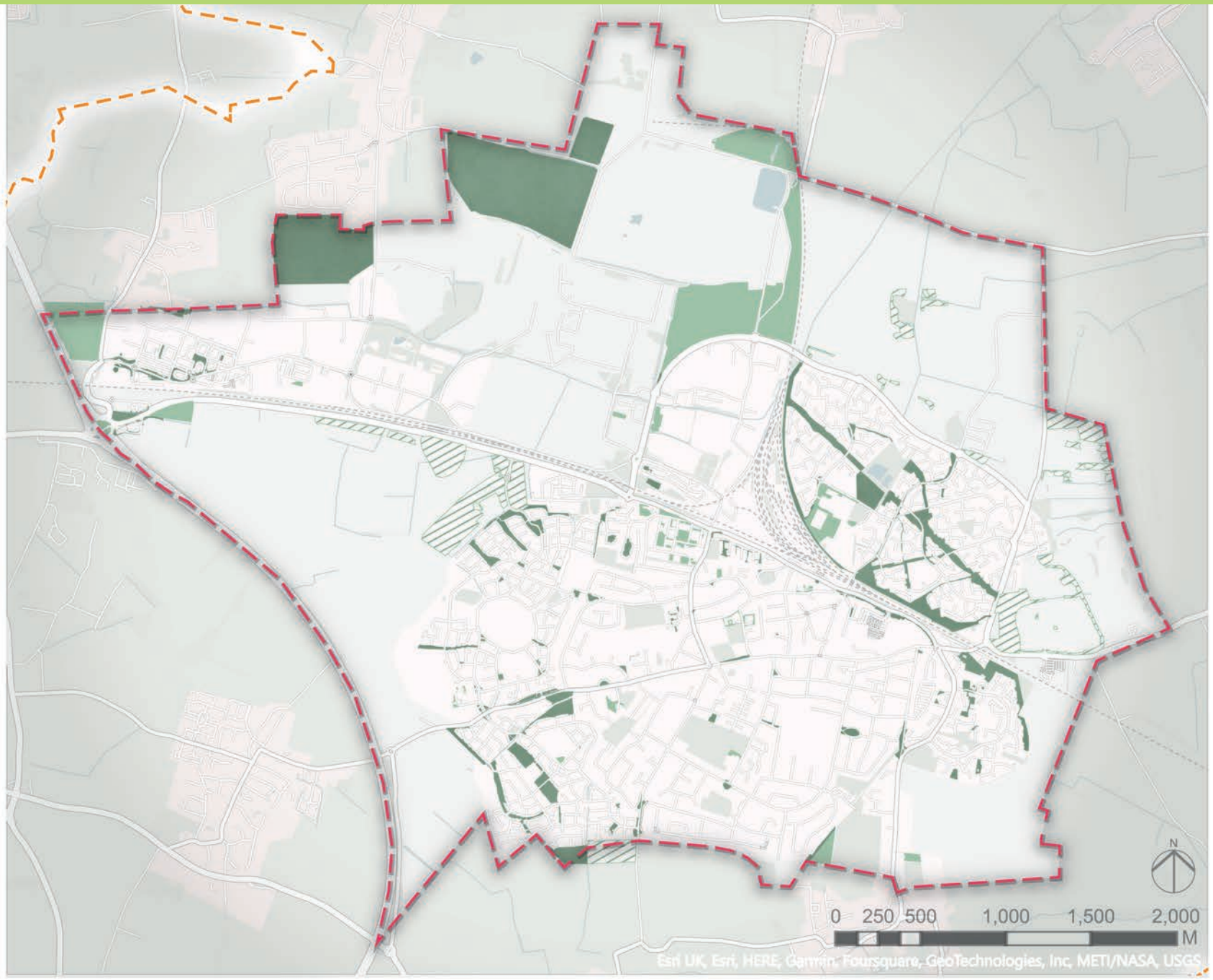
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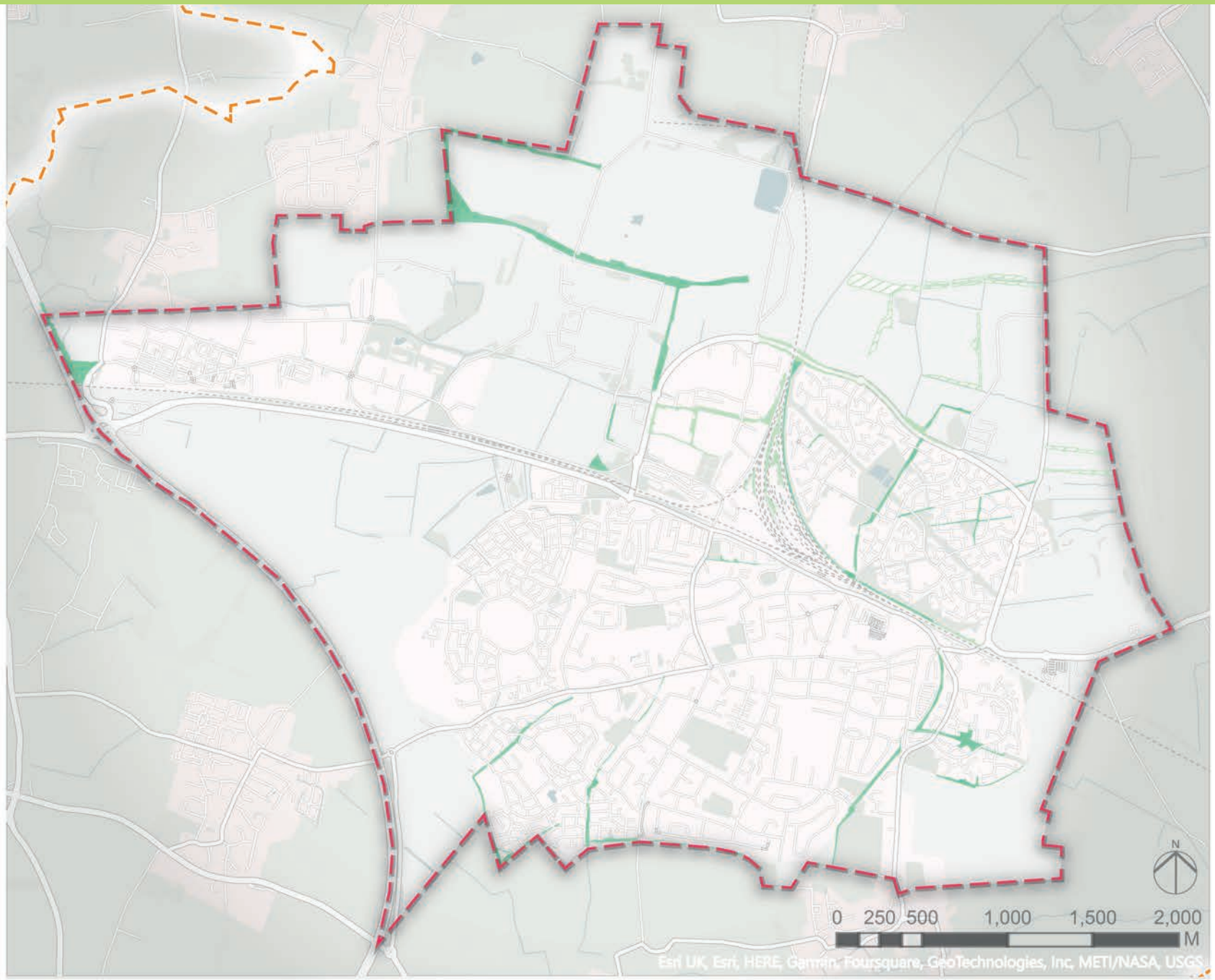

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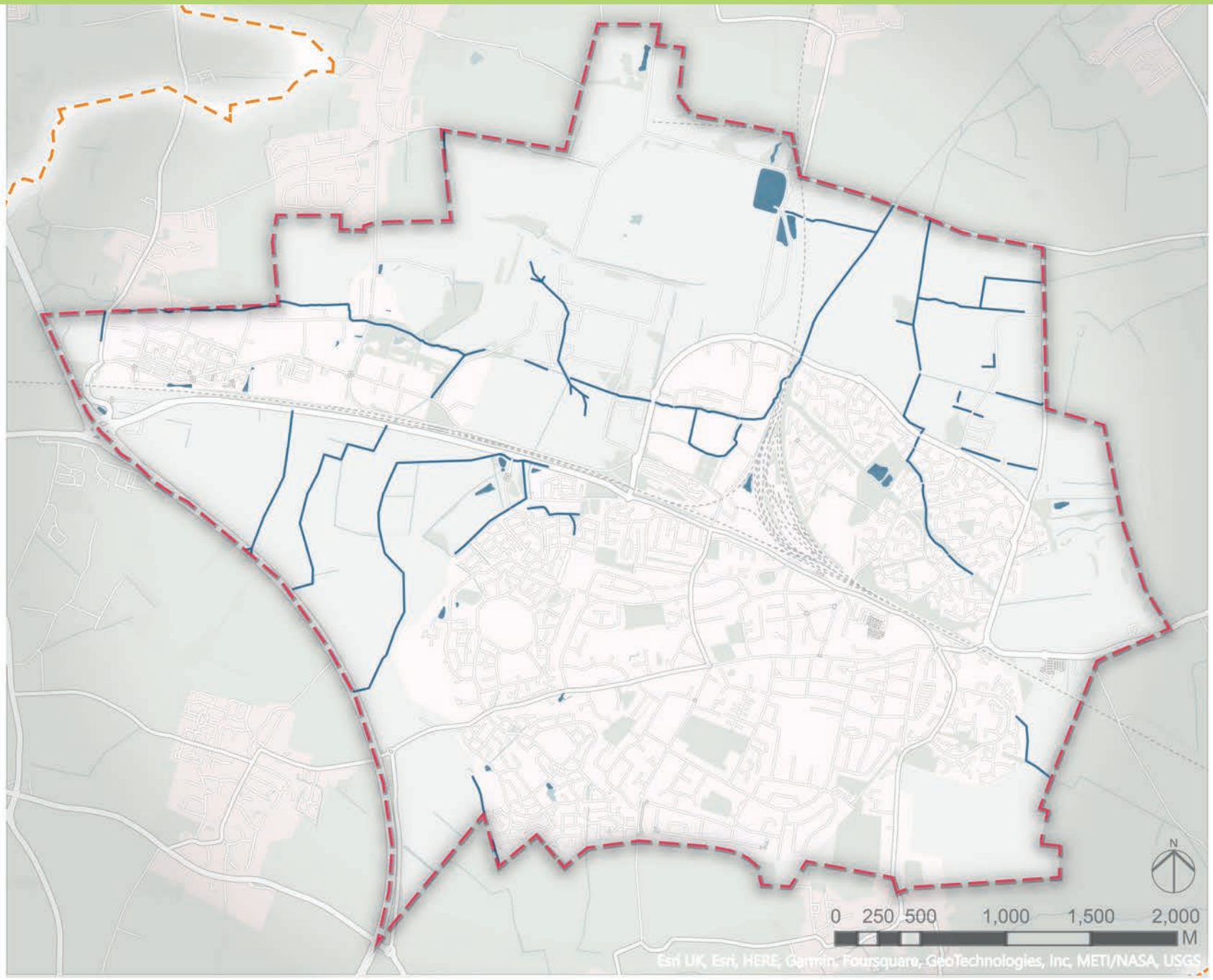

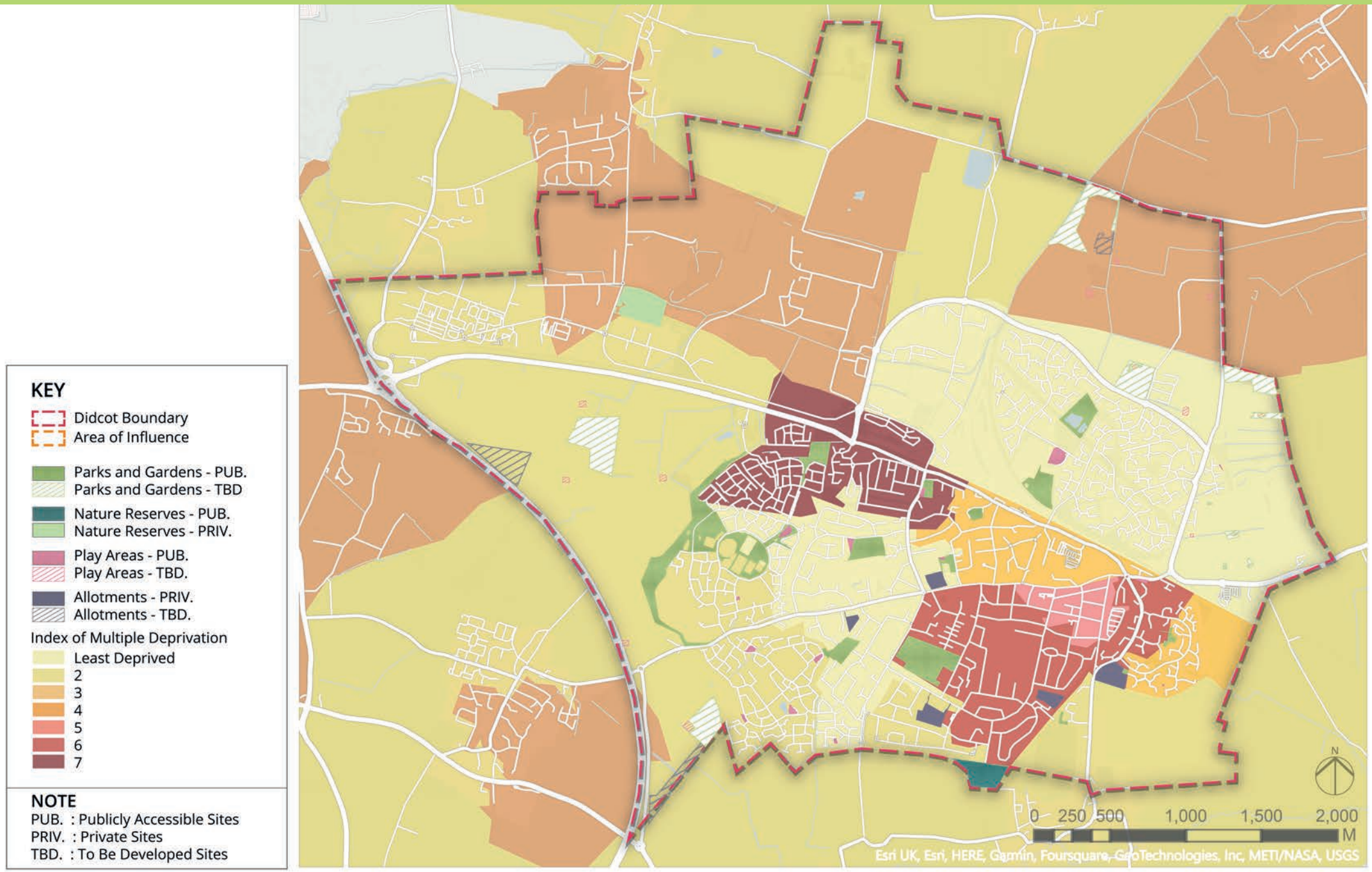
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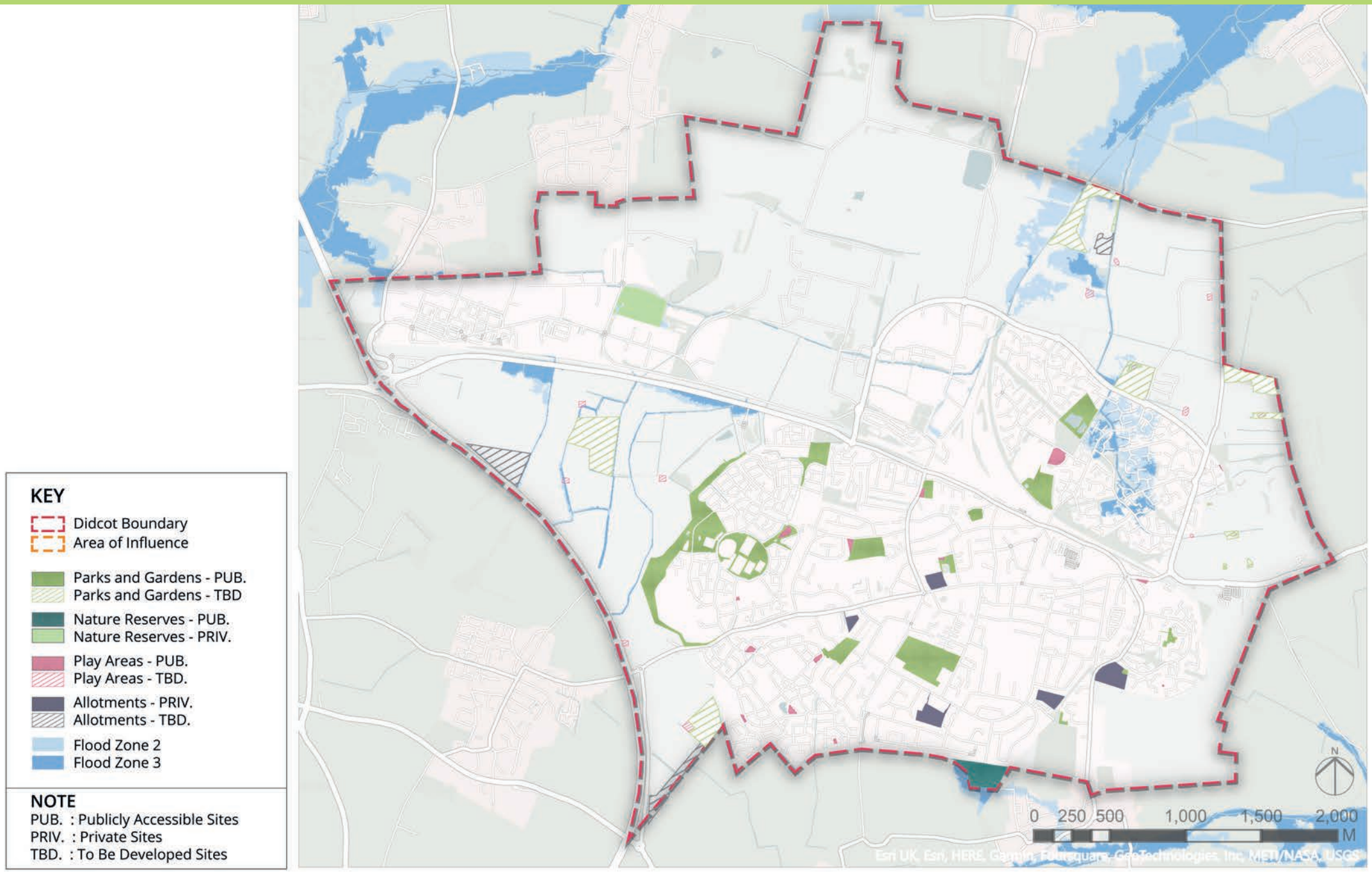
Flood zones against Parks, Allotments, Play and Nature Reserves



Active Communities Team

The Active Communities (AC) Team manages traditional sports development with a health and wellbeing focus. They cover all of South Oxfordshire and Vale of White horse, running a number of programmes such as "Move Together" and "You Move." The main piece of work in Didcot currently involves a nature trail to combat childhood obesity in the south east corner of Didcot. The plans for the nature trail include adding raised beds, animal art installations, food growing areas, and signage. The intention is for this route to be expanded and for the programme to be further developed over time. Bat boxes, bird boxes, and bug hotels will also be added along the route with the potential for local schools to create these themselves, giving kids the opportunity to look for their artwork along the trail.

As well as the obesity rates in the south-east corner, some of the key issues raised by the AC Team included self-harm and alcohol abuse across Didcot. The AC Team highlighted the importance of joining new Didcot with the old town to avoid a divide amongst communities. Linking the neighbourhoods together would also help to ensure consistency across greenspace provision. Further discussion concerned food growing and allotments. It was noted that the potential allotment space along the south perimeter is to become council space and would help complete the perimeter connection. Maintenance and management of these growing spaces needs to be considered and ideally these spaces would be volunteer led. The risks associated with open community gardens is that these spaces become unsecure leading to vandalism and foraging.

Accessibility of routes was also discussed, with suggestions that dropped kerbs were needed along existing green infrastructure corridors – creating accessible trails for buggies, wheelchairs, cycles etc., which is important when looking to improve connectivity.

Didcot Town Council Team

Didcot Town Council (DTC) has a portfolio of 6 parks with Edmunds Park having the largest potential to achieve Green Flag status if there is funding to do so. In addition DTC have 7 playgrounds, 5 outdoor fitness areas, 6 allotment sites.

The issue of cemetery spaces is an ongoing issue for the Council with 7 years left of available space. More cemetery space has been requested however there is limited available land within developed Didcot to address this need.
DTC highlighted that the mowing regime has been taken back from county responsibility. The current state of the verges is due to issues of cost as these spaces were not intended to have a low impact mowing regime. Moving forward there could be consideration for wildflower verges etc. to address issues of ongoing maintenance, safety (i.e. sight lines) and biodiversity.

There is desire from DTC to enhance all of their parks through path improvements, improved provision offers and addressing the issue of anti-social behaviour (ASOB). Additional funding is needed to refresh and maintain existing assets across Didcot. Currently DTC is working to reconstruct the pavilion in Edmunds Park. There has also been a splash park proposed which would require additional funding and maintenance plans to be pushed forward.
DTC noted it is important to connect the new development areas with existing neighbourhoods. With lots of new development coming, enhancing the green connections and green open space will be crucial for giving residents somewhere safe and secure to gather, ensuring the old Didcot doesn't feel left behind. This could be done through enhanced signage and improved wayfinding. The Didcot app was mentioned which can be used to show cycle paths, footpaths, public toilets, crossings, and key spaces of interest, this would be particularly helpful for people with disabilities. DTC noted the gateway to Didcot could be improved with potential sponsorship coming from local businesses.

DTC currently work hard to maintain the allotments and are in the process of organising a gardening club. They would like to inplement a scheme for planting and rewilding across Didcot

to change some of the grey areas over to green. Further to these projects, providing education opportunities about vegetables, planting, etc. is something they would like to push forward. DTC also mentioned there is a polytunnel to be constructed soon which could be used to further enhance these planned programmes.

Climate and Biodiversity Team

The Climate and Biodiversity (CB) Team has worked on a number of green infrastructure strategies with notable publications being in 2011 and 2017. They have been looking for an opportunity to create a country park. The nearby Wittenham Clumps are a big attraction and are heavily used by members of the public which has degraded the landscape significantly. The CB team is looking to create alternative attractions to relieve pressure on Wittenham Clumps. The CB Team highlighted that the ideal location for a country park would be on a hill as it would have views out to the surrounding landscape. The original plan was for the country park to be located in the North-east corner of Didcot in the Ladygrove area. The plot of land that was in discussion to become a country park is currently pasture land. There is also potential to create a walking, cycle, leisure link to the Wittenham Clumps. Funding for this scheme could be pursued through 106 contributions. An active travel route for this connection is desired.

The "Let it be" project has been focusing on letting areas such as Fleet Meadows and Mowberry Fields be left to grow. This in turn would be supported by less intense mowing regimes in other places across Didcot. However, there has been some push back from residents in the past for leaving grass to grow in unmanaged ways. Dispersed orchards could be promoted in residential spaces to reclaim some of the biodiversity value in green spaces. The CB Team noted that tree planting has been an issue in Didcot recently due to archaeological findings.

A focus for the CB Team has been identifying conservation target areas. These areas are useful to identify as, for instance, where there is limited funding to spend on nature, these areas can be utilised for making the most impact. None of the current conservation target areas overlap with the Didcot Garden Town boundary with the nearest area being the Wittenham Clumps.

In terms of flooding, the CB Team highlighted Ladygrove as the area most likely to suffer from climate change. There is currently a flooding issue and with an increase in intense storm events the issue will worsen in future. Ladygrove brook runs through the middle of the neighbourhood and therefore the chance to incorporate SuDS should be taken wherever possible. The CB Team also noted that flood storage strategies are needed.

Strategic Property Team

The Strategic Property (SP) Team is responsible for the Council's land ownership agreements. Much of the land within Didcot is owned by the Council, but there are a number of plots that are under lease and therefore off limits in terms of development. Areas that have been chosen for development are unable to be slated for proposed green infrastructure development. The SP Team highlighted that some of the owned land has been marked as meanwhile sites.

Thinking about the journey into the Town centre, there is consideration for where improvements could be made along station road. Masterplanning for Didcot considers issues such as connecting Ladygrove to the Didcot centre. The SP team noted that a number of strategies have put forward the possibility of closure of Cow Lane tunnel to traffic to allow for an improved walking, wheeling and cycling route. The route linking Milton Park to Didcot centre was also mentioned by the SP Team and noted as unpleasant with a need for improvement.

GLOSSARY

Allotments
Small parcels of land rented to grow fruits, vegetables and plants

Amenity green spaces
Areas of open space used for informal recreation, including communal amenity space around housing estates and community centres

Blue infrastructure
Urban water infrastructure, including ponds, lakes, streams, rivers and storm water provision

Education grounds
Area on which is situated an educational institution, whether public or private

Golf Course
Area of land laid out for golf with a series of 9 or 18 holes each including tee, fairway, and putting green and often one or more natural or artificial hazards

Religious Grounds
Burial grounds, graveyards, crematorium grounds and memorial gardens whether open to the public or not

Green corridors
Relatively continuous areas of open space leading through the built environment, which may link to each other and to Green Belt or Metropolitan Open Land. They often consist of rivers, railway embankments and cuttings, roadside verges, parks, playing fields and extensive areas of private gardens. They may support enhanced connectivity of habitat for plants and animals

Nature Reserve
A Local Nature Reserve (LNR) is a protected area of land designated by a local authority because of its local special natural interest and, where possible, educational and community value

Orchard
Intentional grouping of trees or shrubs that is maintained for food production

Parks and Gardens
Traditional public open spaces laid out formally for leisure and recreation. They can include a mixture of open grass, woodland, flower beds, shrubs, ornamental trees, play spaces, lakes, ponds, sports facilities, toilets, cafés and car parks

Playgrounds
Open space formally set out for children's play and recreation. Using the Fields in Trust *Guidance for Outdoor Sport and Play*, playgrounds are categorised as Local Area for Play (LAP), Local Equipped Area for Play (LEAP) and Neighbourhood for Play NEAP)

Playing Field
A delineated area which is used for football, American football, rugby, cricket, hockey, lacrosse, rounders, baseball, softball, Australian football, Gaelic football, hurling, polo or cycle polo

Sports grounds
Open space (including fenced areas) set out for formal sports activities (including but not limited to MUGA, tennis courts etc.)

Sustainable drainage systems (SuDS)
Sustainable drainage systems (SuDS) are drainage solutions that provide an alternative to the direct channelling of surface water through networks of pipes and sewers to nearby watercourses.

Verges
Strip of land at the side of a road or pavement that is usually covered with grass or shrubs

Water and rivers
Natural and man-made watercourses

Woodlands
Land covered with trees and vegetation

DIDCOT GREEN INFRASTRUCTURE STRATEGY

Summary of Project Options

Headline green infrastructure enhancements

Short term 1-5 yrs

Medium term 5-10 yrs

Long term >10yrs

Item	North-east Didcot Project Options	Estimated cost
1	Open access to railway bridge connecting to Collett	To be determined
2	Protect Easton's Plantation for its biodiversity value	£0
3	Increase multi-functionality of green spine and greenspaces to include biodiversity connectivity, play, food growing, public art and making space for girls	£100,000
4	Develop SuDS measures in green spaces and along Cow Lane, Mersey Way and Tamar Way to address local flooding issues	£200,000
5	Enhance/complete Sustrans NCR 5 to include lighting signage and public art	£250,000
6	SuDS implementation in new proposed greenspace west of Franklin Gardens	£0
7	Create a fully accessible, active travel and leisure community link route from Didcot North development area to Wittenham Clumps	£500,000
8	Pedestrianise Cow Lane underpass	To be determined

Item	South-east Didcot Project Options	Estimated cost
1	(Phase 1 of Sustrans NCR 544) Introduce clear sight lines, lighting and improved signage and clear exits to Sustrans NCR 544 to make it safer for users (especially women and girls)	£100,000
2	Active Communities Nature Trail	External funding*
3	Creation of tranquil space in Bishops Orchard/Millennium Wood	£50,000
4	Community Orchards – Fleet Meadow	£25,000
Entire area	(Phase 1 of street trees) Street tree planting and SuDS across entire area where space permits	£200,000
Entire area	(Phase 2 of street trees) Street tree planting and SuDS across entire area where space permits	£250,000
5	(Phase 2 of Sustrans NCR 544) Complete Sustrans NCR 544 at Didcot Casuals/Millennium Wood	£100,000
6	Extend Millennium Wood and surrounding woodland to Mowbray Nature reserve	£100,000
7	Enhance off-road cycle provision – Broadway east	£75,000
8	Provide enhanced walking/cycling link from Edmonds Park to the Croft and Sustrans NCR 544	£100,000
9	Develop multi-functionality of amenity greenspace to east of Jubilee Way – biodiversity connectivity, play, SuDS etc.	£150,000

Item	South-west Didcot Project Options	Estimated cost
1	(Phase 1) Enhance/develop southern perimeter route between Mowbray Nature Reserve and proposed Alma Park/Neighbourhood Park/ Boundary Park/Robin Way Park. Incorporate play and exercise features	£200,000
1	(Phase 2) Enhance/develop southern perimeter route between Mowbray Nature Reserve and proposed Alma Park/Neighbourhood Park/ Boundary Park/Robin Way Park. Incorporate play and exercise features	£300,000
2	Adjust mowing regime and introduce biodiversity enhancements into Boundary Park and Neighbourhood Park	£100,000
3	Extend woodland fringe between Great Western Park and Valley Park to include section of Neighbourhood Park	£500,000
4	Built multi-functionality into proposed Common Park – biodiversity connectivity, SuDS, play, food growing and design for women and girls	£0
5	Cycling and walking connection to Milton Park interchange and to Great Western Park/Broadway/Edmonds Park/Valley park	£0
6	Science bridge – incorporate SuDS, cycling/walking provision and tree planting/biodiversity corridor enhancement into engineering design	£0

Item	North-west Didcot Project Options	Estimated cost
1	Enhance Milton Park to Milton Gateway walking/cycling link	To be determined
2	Enhance A4130/Station Road cycle infrastructure	To be determined
3	Enhance cycle infrastructure within Milton Park (Park Drive/Innovation Drive/Jubilee Avenue)	External funding*
4	SuDS (rain gardens and swales) on Milton Park road network	External funding*
5	Cycle storage and green gym/trim trails across Milton Park	External funding*
6	Pedestrian/cycle and biodiversity corridor links to Science Bridge route through Didcot A	£75,000
7	Establish and strengthen walking/cycling link between Milton Park and NRC 5	To be determined

Item	Central Didcot Project Options	Estimated cost
1	Biodiversity corridor creation	£100,000
Entire area	Street tree planting (Station Road, Edinburgh Drive and in residential areas where space permits	£50,000
2	Develop mini-forests in car park areas	£100,000
3	Enhance cycle infrastructure in central Didcot as detailed in Didcot Local Cycling and Walking Infrastructure Plan	To be determined
4	Street greening and enhance pedestrian experience on Station Road	£500,000

* External funding streams to be sought